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PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES

GEORGE HENRY FOX

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PHOTOGRAPHIC ILLUSTRATIONS

OF

SKIN DISEASES.

BY

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EIGHTY-FIVE PHOTOGRAPHIC CASES FROM LIFE,

COLORED BY HAND.

SECOND EDITION.

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PREFACE TO THE SECOND EDITION.

The study of Skin Diseases without cases or colored plates is like the study of osteology without bones, or the study of geography without maps. However comprehensive or practical a text-book may be, its verbal descriptions cannot compare in value with a sight of the thing described, or, what is next best, its faithful representation.

It is now six years since the publication of the first edition of "Photographic Illustrations of Skin Diseases." The extensive sale of the work in this country and its translation and sale abroad have been largely owing to the fact that it is the first atlas in which the recent and improved photographic processes have been employed in the portrayal of diseases of the skin. A continued demand for these plates is considered by the author as not only an evidence of their value and adaptation to the wants of the general practitioner but also an ample excuse for a new and improved edition.

In the present work many imperfect plates have been replaced by new and better ones, and some of the single illustrations have been doubled or trebled in order to show different phases of a given disease. In the text, which has been increased to over two hundred quarto pages, special attention has been devoted to the diagnosis and treatment of skin diseases, and the work is now presented as a combined atlas and text-book.

As heretofore, the plates are made from photographic negatives taken from life. The Artotype reproductions of these negatives are the work of Mr. Edward Bierstadt, and the hand-coloring of the plates has been entrusted to the well-known medical artist, Dr. Joseph Gærtner.

GEORGE HENRY FOX.

18 East Thirty-first Street,
NEW YORK, February, 1886.

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SEBORRHŒA.

ARTOTYPE, E. BIERSTADT, N. Y.

DISEASES OF THE SKIN.

CHAPTER I.

GLANDULAR DISEASES.

The sebaceous and perspiratory glands of the skin are numerous, and called upon to play an important part in maintaining the health, not only of the skin, but of the whole economy. A disturbance of their functional activity gives rise to a series of affections which are generally annoying, and often of serious import as indications of constitutional disease. In various affections of the skin the glands are incidentally involved, and often become the seat of inflammation and organic change, but in the present Chapter the affections resulting from purely functional derangement will alone be considered.

The natural secretion of the glands may be abnormally increased or deficient in amount. It may be changed in character and retained within the gland or its duct. Inflammation is not an essential element of these affections, although it may be present in some cases. Acne, a disease of the sebaceous glands which is always inflammatory in character, will be considered among the other inflammatory affections.

SEBORRHŒA.

Synonyms—Acne sebacea.—Dandriff.

Seborrhœa is an affection in which the natural secretion of sebaceous matter is abnormally increased. The skin may appear and feel oily to an unnatural degree, constituting the form of the affection which is known as seborrhœa *oleosa*, or it may be covered by greasy scales or friable crusts, to which condition the term seborrhœa *sicca* is applied. The affection is usually confined to a limited portion of the skin, and is notably frequent upon the scalp, face, breast and back. The oily form of seborrhœa in a mild degree occasionally involves the whole surface of the body.

Seborrhœa capitis. An abnormal increase of the sebaceous secretion is very common upon the scalp. In infants this is usually a portion of the greasy coating which covers the skin of the fœtus (*vernix caseosa*), and which, owing to the presence of the hair, is not removed from the scalp at the first washing of the new-born infant as readily as it is from the remaining portion of the body. This fatty coating upon the scalp is apt to increase when strict

attention to cleanliness is not observed, and assumes in time a dirty yellowish or brownish hue from the admixture of dust and dirt. It is usually limited to the crown of the head. When the mother or nurse is imbued with the absurd notion that the removal of this "cradle cap" would jeopardize the health or well-being of the infant, it may remain a year or two, until it gradually dries and becomes loosened and cast off by the growth of new hair In certain cases this greasy crust becomes heaped up in dry, undulating masses, and in one case I have seen it in thick masses over the forehead and cheeks as well as upon the crown of the head.

Seborrhœa capitis occurring in the form of a liquid secretion in adults is rarely objectionable as the excessive secretion is readily absorbed by the hair, but when, as is far more frequently the case, it occurs in the form of a dry scurf, it is apt to produce more or less irritation of the scalp and to seriously interfere with the natural growth of the hair. This phase of seborrhœa is extremely common and is well known under the familiar name of "dandriff." Numerous fine and dry scales form upon the scalp, especially upon the anterior portion, and occasion considerable annoyance by falling upon the shoulders in a more or less copious shower, whenever the head is scratched or brushed. A slight amount of pruritus is commonly present. In certain cases, chiefly in male adults, this dry seborrhœa forms a thick crust which welds the hair together upon the surface of the scalp and splits into fibres somewhat resembling asbestos when the hairs are forcibly drawn apart.

Seborrhœa facici. In young persons, particularly those subject to acne, an oily condition of the forehead and nose is not uncommon. In rare instances the affection exists in such a marked degree that the oil will collect in drops upon the surface of the skin. In the dry form seborrhœa is most apt to occur in the vicinity of the eyebrows and upon the bearded portion of the face, and usually in connection with seborrhœa capitis. Upon non-hairy portions of the face it is most likely to be located in the furrows at the base of the *alæ nasi*, whence it may extend upon the sides of the nose and upon the cheeks. It now forms a dirty crust beneath and around which the skin is sometimes considerably inflamed.

In elderly persons with a wrinkled and discolored skin seborrhœa often appears in the form of small, dry and dark crusts, especially upon the forehead, temple or malar region. When this crust is removed a red and sometimes a raw patch is discovered. These patches often produce a faintly marked cicatricial condition of the skin, and may become the seat of lupus or epithelioma. Upon other portions of the body, seborrhœa is frequently met with. Over the sternal and inter-scapular region it is common in the oily form and occasionally in the form of pinkish marginate patches covered with thin greasy crusts. In the region of the clitoris and the coronal furrow of the glans penis it is often present, and when frequent ablution is neglected, it often results in a disagreeable accumulation of smegma and a consequent balanitis or vulvitis.

Diagnosis. The oily form of seborrhœa is not readily mistaken, but the dry form of the affection, whether occurring upon the scalp, face or body, is apt to be confounded with several other diseases. In seborrhœa of the scalp the diagnosis is not always an easy matter.

The fine branny scales which constitute "dandriff" are usually of mingled epidermic scales and sebaceous matter, and the relative proportion of these constituents is subject to considerable variation. The scales may be very largely composed of dried sebum, in which case the diagnosis of seborrhœa must be made. But on the other hand, the scales are often dry, white and powdery, and contain little or no sebaceous matter. In such a case they are the result of a pre-existing hyperæmia of the scalp, and constitute that mildest form of erythematous eczema which has been described by many writers as a distinct disease under the name of Pityriasis. It is often difficult, without resorting to a microscopical examination of the scales, to decide whether the sebaceous or the epidermic element preponderates, and many cases indeed are on the border land between seborrhœa and pityriasis.

When seborrhœa has formed a dry scurf or crust upon the scalp, it bears a strong resemblance to an eczema which has reached its final or scaling stage. In seborrhœa, however, the crust can be readily removed by gentle scraping, and the scalp beneath is of a dull greyish or pinkish hue, while in eczema the crust is adherent and the scalp beneath it is more or less inflamed, and apt to bleed if the crust be forcibly removed. In seborrhœa the affection is dry from the outset, while in eczema there is usually a history of previous moisture and a considerable amount of pruritus.

Psoriasis of the scalp is even more similar in appearance to seborrhœa, and is very apt to be mistaken for it when, as occasionally happens, the scaly patches are not present upon other portions of the body. But the scales of psoriasis are drier, whiter and less friable than those of seborrhœa, and while the patches of the latter are irregular in outline, those of the former are commonly circular and especially apt to occur along the frontal margin of the scalp, and in the little tuft of hair which extends down in front of the ear.

Seborrhœa faciei may be confounded with eczema, lupus erythematosus and rosacea. Occurring as it frequently does in the furrow upon either side of the *alæ nasi*, the skin beneath the crust is apt to become inflamed, but there is never any tendency to moisture, as in eczema. Extending upon the side of the nose and cheek, the favorite site of erythematous lupus, an error in diagnosis becomes quite possible, especially as the sebaceous glands are involved in both affections. But the patches of lupus are characterized by a more chronic grade of inflammation, a slighter amount of scaling, and by a somewhat marginate outline, which the patches of seborrhœa never present. Lupus also leads to the formation of cicatrices. Seborrhœa of the nose, occurring in an oily form, is often associated with slight redness of the skin and hypertrophy of the glands, which produces a notable increase in the size of the organ. In such a case the resemblance to rosacea is marked, and indeed the two diseases are not infrequently combined. When seborrhœa nasi exists alone there is no capillary dilatation nor formation of papulo pustules ("blossoms") as is common in rosacea. Moreover the congestion is active and the temperature of the skin is elevated, giving rise to a burning sensation, while in rosacea, on the other hand, the congestion is passive, the tip of the nose feels cooler than natural. however red it may be, and there are no subjective sensations.

In the very rare cases of seborrhœ *sicca*, involving a large portion of the body (*S. universalis*,) the diagnosis of ichthyosis might be made. The nature of the two affections however is widely different. In the former there is an increased secretion of sebum, forming crusts, which are readily removed, leaving the skin smooth and in an almost normal condition. In the latter there is a lack of fatty secretion. The scales are epidermic in character, not readily removed, and the skin beneath is dry and thickened.

Treatment. If the systemic conditions which predispose to seborrhœa were better understood much might be accomplished by attention to diet and internal medication. In the present state of our knowledge we are forced to rely mainly upon external treatment. There are two objects to be kept in mind in the treatment of every case, viz., to soften, if necessary, and to remove the sebaceous secretion; and to stimulate the glands to healthy action. The first aim can be readily accomplished, the second sometimes proves to be a difficult task. In seborrhœa *oleosa* the frequent use of soap tends to keep the skin dry, but rarely effects a permanent change in the condition. After bathing the skin with soap and hot water, and carefully drying it, the application of precipitated sulphur, tannic acid, or some other astringent powder is usually beneficial. If there be a tendency for thin crusts to form over the affected surface the following ointment lightly applied, by means of the finger, is preferable:—

℞. Washed sulphur . . . 8 parts.
Balsam of Peru . . . 2 "
Petrolatum . . . 40 "
M.

In obstinate cases of seborrhœa of the nose, and these cases are generally obstinate, I have obtained the best results by having the patient rub the nose vigorously before going to bed with a soft linen rag wet with ether, and then apply the following lotion:—

℞. Sulphate of zinc . . . 3 parts.
Sulphurated potassa . . . 3 "
Alcohol . . . . 10 "
Rose water to . . . . 100 "
M.

In dry seborrhœa of the scalp the crust may be readily removed by soaking it thoroughly at night with olive oil and shampooing the head in the morning with the officinal tincture of green soap. This will leave the scalp clean and natural in appearance, but a cessation of the treatment at this point will be speedily followed by a return of the crust. The patient must therefore be directed to shampoo the head twice every week, or oftener if it seems necessary, and to apply meanwhile some slightly stimulating ointment every night. Hyde recommends the following:—

℞. Oil of sweet almonds . . . 10 parts.
Carbolic acid . . . . 1 part.
Alcohol to . . . . . 100 parts.
Oil of Bergamot *q. s.*
M.

If this plan of treatment is carried out for a few weeks the tendency to the return of the crust will usually cease. In the many cases where seborrhœa does not form a thick crust upon the scalp, but occurs in the form of dandriff with falling of the hair, it is often necessary to prolong the treatment for several months.

COMEDO.

Synonyms—Acne punctata nigra—Black heads.

Comedo is an affection of the sebaceous glands, occurring alone or associated with acne. It consists in an excessive secretion of sebaceous matter, which becoming hardened, produces a distension of the sebaceous ducts. The skin may be tolerably smooth and dotted with numerous dirty specks, which indicate the mouths of distended ducts, or, as is usually the case, small conical papules are seen with black dots at their summits. The dark color of these "black heads" is owing to the adherence of particles of dirt to the exposed end of the fatty plug which occupies the follicle. In patients who work in dusty rooms, and especially among such as are sparing in the use of soap, these black dots increase in number and prominence, until the face looks as though it had been exposed to an explosion of gunpowder. Unna, of Hamburg, claims that the black end of the comedo is not due to the admixture of dirt, but results from the presence of a pigment. When pressure is applied to opposite sides of a comedo, an inspissated mass composed of sebum and epithelial cells can be extruded in the shape of a curdy or cheesy "worm."

The affection is commonly observed upon the face, although the upper portion of the back is almost as frequently its seat. Not infrequently a few comedos (or *comedones*, as they are called by writers who prefer to retain the Latin term), are seen upon the sternal region and upon the sides of the neck. The sebaceous glands of the nose, which are numerous and normally of large size, are not apt to be greatly distended, although in nearly every case of this affection white plugs or threads of sebum, an eighth of an inch or more in length, can be expressed from the follicles, both upon the tip and alæ nasi. In the concha of the ear the black ends of a group of comedos are frequently seen. In this location they are firmly imbedded and pressed out with difficulty. Upon the forehead and temples comedos do not attain as large a size nor are they as numerous as they are upon the cheeks. They may be soft, whitish, and curdy, curling as they are extruded from the sebaceous ducts, or in cases of long standing they may be more or less hardened, of a yellowish color and pyriform shape, and when pressure is exerted upon the walls of the follicle by means of a silver tube or comedo-presser they pop out with an audible sound. Frequently the comedo is found, upon examination, to be composed of three parts, a black end corresponding to the mouth of the follicle, a yellowish or horny mould of the duct, and a soft whitish extremity representing the fresh secretion of the gland. Microscopical examination of the sebaceous matter composing the comedo will sometimes reveal the presence of an animal parasite called the *steatozoon* or *acarus folliculorum*. Several of these microscopic insects may be found in one follicle. They are

perfectly harmless, and occur in healthy follicles as well as in those which are distended by an accumulation of sebum.

Diagnosis. Comedo is not likely to be mistaken for any other affection of the skin, but in the treatment of acne a peculiar blackening of the mouths of the sebaceous glands is sometimes accidentally produced, and this condition may simulate the disease under consideration. When ointments or lotions containing lead or mercury have been applied to the face, and a change in the treatment is deemed advisable, an ointment or lotion containing sulphur is sometimes thoughtlessly prescribed by the physician, or foolishly applied by the patient without authority. Under such circumstances, a chemical combination of the sulphur with the lead or mercury takes place, and to the patient's dismay, the face suddenly assumes an appearance as undesirable as it is unexpected. The cheeks, and especially the nose, becomes peppered with innumerable black dots, each one indicating the orifice of a sebaceous follicle, at which point the above mentioned chemical combination has taken place.

Treatment. The treatment of comedo is usually restricted to local measures, although attention to the state of the general health is necessary in most cases to check the tendency to the disorder. Our first aim should be to evacuate the distended ducts. This is frequently accomplished by the patient, by means of the thumb-nails. The use of a watch-key is a better plan of treatment, but since, on account of its square bore and rough end, it is liable to wound the skin, several little comedo-pressers have been devised as a substitute. The simplest instrument is a silver tube, five or six centimetres in length, with rounded extremities, and a calibre of knitting-needle size. By placing the end of this tube over the summit of the comedo, and exerting a quick, firm pressure, the sebaceous plug can be expressed with the least amount of discomfort. In pressing out comedos over bony prominences, such as the cheek bone or margin of the jaw, or upon the nose, care must be exercised lest the tube slip and tear the surface of the skin. A small elongated curette can often be used to better advantage than a silver tube, especially when the comedos are large or of variable size. The beak of the curette, which is held at an angle of forty-five degrees, should be pressed firmly upon the skin at the side of the follicular orifice, and by performing a sort of *tour de maitre* with the instrument kept at the same angle with the skin, pressure is successively exerted upon each side of the comedo and its easy extrusion from the duct is thus accomplished. In this, as in other simple manœuvres, practice makes perfect. When the comedos are considerably elevated above the level of the skin, the black head may be scraped out of the duct by a rapid sweep of the side of the instrument, after which a natural evacuation of the gland will soon follow. After the follicles have been evacuated, the face may be bathed with very hot water to lessen the congestion, which, in a greater or less degree results from the use of any intrument. The daily use of soap should be prescribed, both for the sake of its stimulant action on the glands, and for the purpose of removing a portion of the fatty matter from ducts which are not sufficiently distended to warrant the use of the comedo-presser. Soap will also remove from the follicular orifices the numerous black specks which in young persons with over-active glands, are apt to dot the face in spite of unremitting attention to bathing.

When there is any tendency to glandular inflammation, and the use of soap is found to aggravate this, it is well to bathe the face in warm water, to which a little borax or bran may be added. Ladies sometimes object to the use of soap in bathing the face, on account of the tense and shiny condition of the skin which is sometimes left. This is easily remedied by slight friction with a piece of flannel or chamois-skin, and if necessary, by the application of a little rice powder or lycopodium. As a lotion to be used in cases of comedo, the following is mildly astringent and conducive to the normal action of the glands:

℞. Sulphate of Zinc, ... 2 parts.
Orange Flower Water, . . . 100 "
M.

On the theory that the black head of the comedo is due to a pigmentary deposit which is soluble in acids, Unna advises the use of the following ointment:

℞. Kaolin, ... 4 parts.
Glycerine, ... 3 "
Acetic Acid, ... 2 "
M.

MILIUM.

Synonym—Acne punctata albida.

Milium is a distended sebaceous gland, forming a minute whitish tumor of the skin. It is usually of the size of a pin's head or a millet seed, from whence it derives its name. It presents the appearance of a little pearly globule just beneath the epidermis, and has a fine shotty feeling when the finger is passed lightly over the skin. A number are commonly present in a given case, and are most frequently found upon the eye-lids and the malar portion of the cheek. They are most apt to occur in middle life and in women with a dark sallow skin. They form gradually and for some time may escape notice. They cause no subjective sensation whatever, and often remain for years without undergoing any change in size or appearance, and it is only in certain cases where their number renders them conspicuous, that the physician is called upon to remove them. When carefully examined after removal from the skin, milia are found to be small globular masses of a dense cheesy or calcareous character. They are formed by the retention of sebum in the glands, the duct of which has become obliterated.

Diagnosis. Upon the forehead and temples of young persons suffering from acne, numerous whitish punctate elevations of the skin are often present in connection with comedos and acne papules. These are also distended sebaceous glands, shining through the thin epidermis, and differ from milia only by the fact that the duct is not obliterated. While milia are disposed to be permanent, these little glandular nodules usually become emptied of their contents in a comparatively short time, even without treatment.

Treatment. The simplest and best mode of removing milia is to puncture the epi-

dermis over each one with a sharp acne lance, and then to press out the little globular tumor by means of a small sized curette. This need not cause the slightest drop of blood and is sufficient to permanently remove the milium. I have never seen one return after removal in this manner.

CYSTIS SEBACEA.

Synonym— Wen.

A sebaceous cyst or wen is a milium on a larger scale. It is a collection of sebaceous matter enclosed by a sac which has been formed by a gradual distention of a sebaceous gland. It forms a prominent rounded tumor, varying in size from a pea to an English walnut. When small, wens are usually of firm consistence, and movable beneath the skin. When larger, they are apt to become somewhat softer and doughy in character. The skin over the tumor is usually of normal color and texture. It may become somewhat thinner when the growth is large and in exceptional instances it becomes reddened by inflammation, and suppuration occasionally occurs. Wens are usually single, but several of varying size are not infrequently met with upon the same patient. The scalp and forehead are the favorite site of the tumors, but they also occur upon the back, the scrotum and other parts. A cyst occurring upon hairy portions of the body usually becomes bald in a short time, the hair bulbs being destroyed by the tension of the skin. Occasionally the duct of the gland is not entirely obliterated and through this canal leading to the cavity of the cyst, a portion of its contents is from time to time extruded, giving the tumor a flattened appearance.

The contents of sebaceous cysts vary in character from a soft, white, curdy matter to a dry, friable and sometimes extremely fetid substance.

Diagnosis. A wen is usually recognized without difficulty, but a fatty tumor (adenoma) or even a subcutaneous abscess might be mistaken for it, especially when not occurring upon the scalp.

Treatment. A complete removal of a sebaceous cyst is usually not a difficult matter if ordinary care is exercised in the operation. The skin covering the tumor should first be incised to a sufficient length to allow the globular mass to pass through readily. This can then be easily raised from its bed by means of a curved spatula or small spoon handle, as there are usually no adhesions, except in cases where there has been a previous unsuccessful operation or spontaneous inflammation around the tumor. Care should be taken not to cut into the sac and allow a portion of its contents to escape. If the sac is merely opened and its cheesy contents scraped or pressed out, a return of the tumor may be expected. Our object should be to remove the whole or greater portion of the sac, and when this is accidentally punctured by the knife, and the tumor becomes partially collapsed through loss of some of its contents, it is more difficult to get rid of the entire growth. Some prefer to puncture a wen, press out the contents and destroy the secreting surface of the sac by injecting iodine or carbolic acid. Vidal has advised the injection of from five to ten drops of ether every second

day until inflammation ensues. Then a puncture of the base of the tumor will allow pus and broken down sebaceous matter to escape, and a cure follows.

HYPERIDROSIS.

Hyperidrosis is an affection in which there is an abnormal functional activity of the sweat glands. Profuse perspiration which follows vigorous exercise or exposure to a high temperature is purely physiological in character and consistent with health. The colliquative sweating of phthisis as also that which is observed in rheumatism, intermittent fever and other febrile affections, is strictly speaking an instance of hyperidrosis, but is usually not considered when viewing the condition from a dermatological standpoint. Many who are otherwise in apparently perfect health sweat excessively without apparent provocation, and are annoyed thereby to a greater or less degree. Corpulent people, especially in summer time, are especially prone to a mild degree of hyperidrosis, but some who are not particularly well nourished suffer in like manner and at various seasons of the year. The affection may occur in an acute form and subside in a short time, the obscure cause having ceased to act, but generally it is extremely chronic, as the disposition to the excessive secretion of sweat is not easily subdued.

Hyperidrosis may be general (*H. universalis*) or local in its manifestation (*H. localis*). Occurring over the whole surface of the body it is not usually severe, but when limited to certain parts it is much more noticeable and constitutes a not uncommon and an extremely disagreeable affection. The palms, soles and axillæ are the parts which are most apt to be the seat of the trouble, but the face and the genital region are not unfrequently affected. In rare cases hyperidrosis occurs in a unilateral form. One side of the head, or one of the extremities, or even one-half of the entire body, may be bathed in perspiration, while the opposite side retains its natural condition. A story is told of a celebrated young comedian who was subject to unilateral hyperidrosis of the face. One night he appeared upon the stage as an old man, the face being made up to suit the part. As the play proceeded the merriment of the audience became excessive, and the unusual and seemingly uncalled-for shouts of laughter which greeted his acting surprised and perplexed him. On retiring behind the scenes he found that the unilateral perspiration had washed half of the paint from his face, which had presented to the audience the appearance of wrinkled age upon one side and blooming youth upon the other.

Hyperidrosis of the hands is not only annoying to the patient himself but to those with whom the social custom requires him to greet with a shake of the hand. A kid glove cannot be worn in certain cases without becoming immediately soaked through by the increased secretion, and often the affection prevents the sufferer from following any occupation involving the handling of fine textures. Frequent wiping of the hands does little good, and in social intercourse the consciousness that the hands are unpresentable and the consequent anxiety of mind tend only to increase the unfortunate secretion.

Hyperidrosis of the feet is often associated with a similar condition of the hands, but either may exist alone. When the feet are the seat of the affection, the stockings, however frequently changed, are kept moistened by the secretion, and even the leather covering of the feet becomes soaked in time. A disagreeable odor is usually occasioned by the chemical change which the secretion undergoes.

Treatment. The predisposing causes of hyperidrosis should be diligently sought for in every case and removed if possible. Nervous derangement and an impaired circulation are frequently underlying conditions which demand the most careful hygienic treatment. Among the drugs which have been recommended as capable of producing beneficial results in this affection are atropia and ergot. Small doses of jaborandi have also been employed with good effect in both local and general hyperidrosis. As it is impossible in many cases to determine the precise cause of the disorder, we are generally forced to depend largely upon external applications, many of which give immediate relief and in time subdue the excessive secretion. When the sweating is general baths containing sea salt or carbolic acid may be employed, or portions of the body rubbed successively with a soft sponge dipped in the following lotion:—

℞. Sulphate of quinine . . . 5 parts.
Alcohol to . . . . . 500 "
M.

In hyperidrosis of the axilla or genital region, the skin may be bathed with a strong solution of tannin or alum, and after careful drying, the following powder dusted over the surface:—

℞. Salicylic acid . . . 3 parts.
Starch . . . . 10 "
Talc powder . . . 87 "
M.

For the hands and feet a similar plan of treatment is useful. Another excellent remedy is the subnitrate of bismuth rubbed well into the skin after bathing, or dusted over the inside of the gloves or stockings. Hebra advised a plan of treatment, which if properly carried out, usually affords immunity from the annoying secretion for a considerable time, if it does not effect a cure. This plan consists in spreading diachylon ointment upon pieces of linen with which the fingers and toes, as well as the rest of the hands and feet, are carefully enveloped. This dressing is to be re-applied twice daily for a week or two, the hands not being washed in the meantime. The application causes an exfoliation of the epidermis, leaving the skin soft and comparatively dry.

BROMIDROSIS.

Synonym—Osmidrosis.

Bromidrosis is an affection in which the perspiration is characterized by a peculiar and

usually an extremely disagreeable odor. The normal perspiration has always a slight odor from admixture with the sebaceous secretion, although this may not be perceptible to the average sense of smell, except in summer, or after violent exercise. In disease the perspiration is frequently changed in character, and rheumatism, intermittent fever, scurvy and other affections have been supposed by some to have each its distinct and characteristic odor. Indeed, some have claimed that the odor emanating from various skin diseases, notably small-pox, scabies and syphilis, might be utilized as a basis of diagnosis. Certain persons, whose skin is perfectly free from disease, and whose general condition is good, exhale from their bodies a peculiar odor which seems to be natural to them. It may be constant, or occur only in connection with mental excitement, or other unusual conditions. The odor is usually indescribable, although it has been likened in certain instances to "violets," "pine apple," &c.

In bromidrosis the secretion may exist in normal amount or it may be in excess. The latter is commonly the case upon the feet and in the axilla, in which case we have simply hyperidrosis with a fœtid odor. This odor may not be due to any change in the composition of the perspiratory secretion, but usually results largely from the decomposition of the sweat which has soaked into the clothing of the part. In bromidrosis of the feet even the shoes may become saturated with the foul secretion. The peculiar odor may also be due in great part to a peculiar secretion of the sebaceous glands which becomes mingled with the perspiration. As the fœtid secretion of bromidrosis is more irritating to the skin than a simple excess of perspiration we find in this disease a marked tendency of the skin, especially of the feet, to become macerated and tender. Upon the soles the epidermis is always sodden, and often peels off in large masses, leaving an inflamed and often eczematous condition, through which locomotion is seriously impaired.

TREATMENT. The general treatment of bromidrosis is substantially the same as that of hyperidrosis, since whatever lessens the amount of the secretion tends to diminish the unpleasant odor. The natural tendency of some persons to secrete fatty acids, which give to the mingled sweat and sebum a pungent if not a disagreeable odor is extremely difficult to overcome. The more severe forms of fœtid sweating are fortunately more amenable to treatment, and are often checked by the adoption of such measures as promote the general health of the person affected. In the meantime a resort must be had to local and more or less palliative measures. Lotions and dusting powders of an antiseptic character have been found most useful in bromidrosis, especially when the disease involves the feet, as it is most apt to do. For bathing the skin a one per cent. solution (five grains to the ounce) of chloral or permanganate of potash is both cleanly and beneficial. It should be applied with as little friction as possible, and allowed to dry upon the skin, or the excess of moisture may be removed by the pressure of a soft warm cloth. Ainsworth recommends the application of the following powder: —

℞.	Dried alum . . .	45 parts.
	Salicylic acid . . .	5 "
M.		

Thin, of London, after a careful study of the subject of bromidrosis, found the moisture which collects in a patient's stocking to be of an alkaline reaction and swarming with bacteria. This fluid acts as an irritant to the skin and greatly aggravates the disease. As a parasiticide application, and one calculated to allay the irritation of the skin, he recommends the use of boracic acid. The stockings should be changed twice daily and the stocking feet placed for some hours in a jar containing a saturated solution of boracic acid. They are then dried and may be worn again, the odor having disappeared. To prevent the fœtid perspiration soaking into the soles of the shoes, and thus giving rise to a permanent stench, cork soles are to be worn during the day and soaked over night, like the stocking feet, in the jar of boracic acid.

CHROMIDROSIS is a term applied to a discoloration of the sweat. This may be blackish (*melanidrosis*) and occur about the eyes of hysterical women, bluish (*cyanidrosis*) and occur upon the body in sufficient amount to stain the underclothing, or red (*hematidrosis*) in which case there is usually an extravasation of blood into the sweat glands.

ANIDROSIS signifies an absence of perspiration. It may result from disease of the skin, as in ichthyosis, or from internal disease, as in cases of diabetes. For the relief of this condition the internal use of pilocarpine, or a resort to the Turkish bath, would suggest itself.





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VARICELLA.

VARIOLA.

ARTOTYPE E. BIERSTADT, N. Y.

CHAPTER II.

INFLAMMATORY DISEASES.

This class of skin diseases, including those in which inflammation is the essential element, ranks first in point of size and importance. It embraces most of the common affections of the skin, and a thorough appreciation of the nature and treatment of these will enable the physician to claim the mastery of more than one half of Dermatology.

Some writers have separated the hyperæmic affections from those in which exudation is present, but in practice it is by no means easy to keep them apart. A simple erythema with desquamation merges gradually into the mildest form of erythematous eczema, and in many cases it is impossible to say where the dividing line should be drawn. Since an erythema which is not evanescent in character is usually accompanied by redness, heat, pain and swelling in at least a mild degree, it seems both proper and desirable to include the purely hyperæmic with the exudative affections under the same head.

The exanthemata naturally fall in this class, but as they are fully described in all works on general medicine, it is unnecessary in a treatise on skin diseases to devote much space to their consideration.

RUBEOLA.

Synonyms—Morbilli—Measles.

Measles is a highly contagious febrile affection, the chief symptoms of which are a catarrhal condition of the respiratory passages and a characteristic exanthem. It is commonly observed among children, and in an epidemic form. Like the other exanthemata, it is not likely to occur but once in a lifetime; but exceptional cases are not infrequent where repeated attacks in the same person have been noted by physicians who would not be likely to mistake the nature of the disease. Measles is more contagious than small-pox or scarlet fever, and even on the first day of the fever infection is apt to be transmitted to unprotected persons who come near the patient. The period of incubation is variable in duration, ranging from one to three weeks, during which period the patient experiences little if any discomfort. The attack begins suddenly with an irritation of the mucous membrane of the nose and suffusion of the eyes, a tendency to sneezing, a slight thin nasal discharge and occasional epistaxis. The temperature which usually rises to 103–104° F. at the outset, declines on the second or third day, but rises again with the outbreak of the eruption. This generally occurs on

the fourth day, sometimes on the third, but occasionally on the fifth day or even later. It is first noted upon the forehead and temples, from which it quickly extends down upon the face, and in two days usually covers more or less of the trunk and extremities. In its natural course the fever now abates, the catarrh and cough are lessened, the rash gradually fades, and in less than two weeks the skin presents a characteristic branny desquamation.

The eruption is at first of a dusky hue and of a maculo-papular character. The lesions are numerous and closely aggregated over limited portions of skin, darkest in the centre, but disappearing entirely under pressure of the finger. They are sometimes crescentic in form, but usually appear as a deep red and fine mottling upon a swollen and erythematous surface.

The disease may occur without the catarrhal symptoms, and on the other hand without the appearance of any rash, or one so slight as to escape observation. In rare instances, which occur chiefly among poorly nourished and weakly children, the eruption becomes hemorrhagic in character, and the disease assumes a malignant form (Black Measles). Whenever the eruption is very well marked there is liable to be a development of fine miliary vesicles upon some portions of the skin. Occasionally bullæ form, and frequently urticaria appears as a complication of the rash.

RUBELLA.

Synonyms—Röthеln— German Measles.

This affection is one which was formerly regarded as a mild form of rubeola, and even now is often mistaken as such. There is little doubt, however, that it is a distinct affection, and that an attack of the former does not exempt a patient in any degree from an attack of the latter affection, or *vice versa.*

The symptoms of rubella are similar to those of rubeola, though far less marked. The prodromic fever is very slight when present, never more than twenty-four hours in duration, and frequently the rash is the first symptom of the affection. There may be a slight coryza, with redness of the conjunctiva, but rarely sufficient to occasion much annoyance. A sore throat is a more common symptom, and one which sometimes persists after the rash has disappeared. The eruption consists of numerous minute red papules, of a much brighter hue than is seen in measles, and exhibiting a tendency to coalesce and form smooth red patches. It fades in two or three days and is followed by slight desquamation.

SCARLATINA.

Synonym—Scarlet Fever.

Scarlatina is an acute contagious disease characterized by fever, sore throat, and a bright red erythematous eruption.

The period of incubation is quite variable, and unlike measles, the patient is not likely to infect others until the eruption has become well developed. The scarlatinal poison is less

volatile than that of measles, and is capable of remaining a long time in clothing and other articles which have been in close proximity to a scarlet fever patient, and this fact will undoubtedly account for the uncertainty of the period of incubation.

The attack, which is always sudden, is usually characterized by chills, vomiting and swelling of the throat. The tongue is at first coated, but in two or three days begins to assume a characteristic, bright red "strawberry" appearance. The fever is of high grade, and may reach 105°, or more, on the first day, the pulse being rapid in character, and the skin extremely dry and hot. It suffers no abatement, but on the other hand, may increase with the development of the exanthem.

The eruption usually appears upon the second day. It is commonly noted first upon the neck and upper portion of the chest, from which it rapidly spreads upon the trunk and extremities, reaching its full development upon the third or fourth day. With the exception of a bright flush upon the cheeks, the face remains unaffected at the outset of the eruption. The rash is at first punctate in character, the red points being numerous and closely set, but by degrees these coalesce and form large patches of uniform redness. Upon the neck and chest they occasionally become slightly vesicular. Upon the fourth or fifth day the rash usually begins to fade, and in ten or twelve days has completely disappeared, if the case is typical in its course. A well marked desquamation of the greater portion of the body then takes place and continues during the period of convalescence. The flakes of epidermis may be small though rarely furfuraceous as in measles, but generally they are of considerable size, especially upon the hands and feet. In some cases the nails and hair fall after a severe attack of scarlatina. At the commencement of desquamation, and sometimes earlier in the course of the disease, the kidneys are notably affected, and albumen appears in the urine in considerable quantity.

Scarlet Fever, with all the usual symptoms except the eruption, may occur, especially in adults. Although the disease occurs, as a rule, but once in a lifetime, it is not uncommon for some physicians and nurses to be affected with sore throat as often as they are called upon to attend a case of scarlatina.

There is a great variation in the severity of the disease among individuals and in different epidemics. While one child may have scarlet fever and scarcely be aware of the fact, another may have a malignant form, with terrible throat symptoms and hemorrhagic eruptions, or even die before the rash has had time to appear.

DIAGNOSIS. As scarlet fever, measles and rubella do not always occur in a typical form, a difficulty in diagnosis is very apt to arise, especially when the case happens to be a sporadic one. The features of the three diseases, which have been very briefly mentioned, must always be taken into consideration as a basis of diagnosis, but *experience* will generally be found to be the only reliable guide. For convenience of reference the following table, arranged by Liveing, is appended :—

SCARLATINA.	RUBEOLA.	RUBELLA.
Incubation, four to six days.	Fourteen days.	Ten to fourteen days.
Prodromic fever, two days.	Three days.	
Rash:—		Often absent.
(*a.*) Diffuse bright red, or in large patches.	(*a.*) Crescentic patches of a dull raspberry red.	(*a.*) At first, patches like measles, subsequently often becoming diffuse like scarlatina.
(*b.*) Begins on the neck, then chest.	(*b.*) Begins on the face.	(*b.*) Begins on back and chest.
(*c.*) Brightest on the covered parts.	(*c.*) Brightest on the exposed parts.	
Period of Eruption. Uncertain, but generally rather longer than in measles.	Very constant; about three days.	About five days.
Tongue. Red, with large, prominent papillæ, "strawberry like," or covered with a thick, yellowish fur in the centre, with bright red prominent papillæ.	Furred, and often whitish.	Slightly furred.
Throat. Severely inflamed. Tonsils enlarged and very painful.	Slight soreness.	Slight soreness, but generally lasting a long time. Tonsils enlarged.
General symptoms. High fever; hot skin, high temperature and pulse, headache, &c.	Dark red irregular spots on soft palate. Swelling of the face and eylids, coryza, photophobia, lachrymation, laryngeal cough, and general catarrh.	Fever generally slight, with or without catarrhal symptoms.
Desquamation. Copious.	Very slight, branny desquamation.	Slight. Sometimes more than in measles.

TREATMENT. Typical cases of these three affections usually run their course without requiring any inteference on the part of the physician. In the mildest cases, however, a strict professional watch care is demanded in order to detect all threatening complications at the earliest possible moment. On prophylactic grounds, complete isolation of the patient is necessary, and after convalescence a thorough fumigation of the apartment, the bedding and clothing is advisable. This is especially so in case of scarlatina.

VARIOLA.

Synonym—Small Pox.

Variola is ordinarily the most severe and the most dreaded of the acute exanthemata. Thanks to one of the most brilliant achievements of medical science, this terrible scourge of former times can now be held in check, and measures instituted which will exempt all intelligent and unbiased members of a community from its direful attack.

The period of incubation is usually from ten to thirteen days, during which slight lan-

guor, with pain in the head and back, may be experienced. The initial and prodromal stage is usually ushered in by a violent rigor or repeated chills. This is followed by a well-marked fever, severe headache, and aching pain in the lumbar region and vomiting. At this time a diffuse erythematous rash may appear upon portions of the body, or a petechial eruption be observed upon the lower portions of the abdomen, genitals and inner surface of the thighs. These disappear before the occurrence of the characteristic exanthem which commonly makes its appearance on the third day. This begins upon the scalp and forehead in the form of small pale red and slightly elevated macules. These quickly appear upon the face, and in a few hours are apparent upon the body and extremities, the legs and feet being the most affected. In about two days these lesions have devoped into hard shotty papules, which on the sixth day of the disease become conical and present minute vesicles at their apices. On the eighth day these vesicles are pea-sized and hemispherical in form. A peculiar depression in the centre of most of these vesicles now takes place which is quite characteristic of the disease. On the ninth day of the disease the lesions become pustular in character and a congested halo appears around each. When the lesions are closely aggregated a considerable tumefaction of the skin ensues, with frequent coalescence of the pustules. The face is especially apt to present this confluent form of the eruption, and the swelling becomes so great that the patient is unrecognizable. Owing to the successive development of the lesions upon different portions of the body the eruption is generally observed to be pustular upon the face, while it is only in the vesicular stage upon the lower extremities. Even when the eruption is quite discrete upon the trunk, the hands and feet are usually thickly covered and intensely swollen. The mucous membrane of the oral cavity, and particularly the hard and soft palate present an eruption somewhat similar to and coincident with that upon the skin.

The temperature, which may have reached 104° in the initial stage, falls suddenly with the outbreak of the eruption to nearly normal degree, and the other symptoms likewise abate, leaving the patient in a comparatively comfortable condition. With the development of pustules a secondary or suppurative fever ensues, accompanied by headache, and not infrequently delirium. The pustules of small-pox, which are at first umbilicated, like the preceding vesicles, may become rounded from a loosening of the trabecular bands, which have produced the central depression. After an existence of two or three days a partial desiccation takes place, with an exudation of a viscid, honey-like substance upon the surface of the pustules. Gradually these become converted into brownish crusts, the inflammatory swelling of the skin lessens in a notable degree and the fever subsides. The crusts loosen and fall, leaving a dull red mark, the color of which varies according to the surrounding temperature and the activity of the circulation. With the drying and fall of the crusts intense itching is commonly experienced by the patient. In uncomplicated variola the course of the disease is usually four to six weeks. In complicated cases, or in those rare and malignant cases where hemorrhage takes place in the pustules, the duration of the disease and convalescence is greatly prolonged unless, as frequently happens, death cuts short its course.

VARIOLOID. A mild form of small pox, such as may occur in persons whose suscep-

tibility is slight, or in those who have been partially protected by inoculation or vaccination, is commonly known as varioloid or modified small pox. It is by no means a distinct affection.

The most striking feature of varioloid is its tendency to run an irregular course as regards the duration of its stages and the character of its symptoms. The eruption, which in variola vera appears uniformly on the third day, may appear on the first or second in varioloid, or be unusually delayed. It often appears first upon the trunk instead of upon the face, often in successive crops, and the lesions do not run such a regular course as do those of typical small pox. Frequently the lesions are absorbed before reaching the pustular stage, and again they may run such a rapid course that desiccation begins on the seventh or eighth day.

Diagnosis. The diagnosis of variola or varioloid must always rest upon a familiarity with the symptoms of the disease and a very careful examination of the case. When doubt exists it is advisable to visit the patient repeatedly at short intervals, and to avoid giving any hasty opinion.

Treatment.—It has been said of small-pox that in its mildest forms medicinal treatment is scarcely called for, in the severest it is useless, and indeed under any circumstances it has but little influence over the course of the disease. Nevertheless there is much that can be done in its treatment with a view to alleviating the sufferings of the patient, guarding against threatening complications, and preventing, to a certain extent, the unsightly pitting of the face, which is often a life-long indication that the bearer has suffered from small-pox.

There is no specific remedy as yet discovered which will influence the course of the disease, and treatment of the various symptoms and complications as they present themselves is the usual duty of the physician. In no disease is good nursing more essential, and attention to minute details which contribute to the comfort of the patient will often turn the scale between life and death. The older plans of treatment by sweating, purging and blood-letting have fortunately now but an historical interest, and have been supplanted by various hygiinic measures, such as keeping the patient in a cool, dark and well ventilated apartment, and such treatment as is calculated to lessen cutaneous inflammation and to support the strength of the patient. The free use of cold water and acid drinks to allay thirst, and the application of cold compresses, or resort to cool baths or sponging, are highly recommended. The application of caustic to the pustules, or the use of mercurial plasters and solutions of iodine or nitrate of silver, with a view to prevent pitting of the face is of doubtful value, and certainly inferior to an attempt to control the inflammation and prevent pus-formation in the deeper portion of the skin by the use of cold compresses.

While little can be done through medical skill in the actual treatment of a case of small-pox, much can be accomplished in preventing the spread of infection, through a complete isolation of the patient from the very outset of the attack to the close of convalescence and the careful disinfection or destruction of all clothing, bedding and other articles which might transmit the disease to others. The greatest good, however, to the greatest number, results from the prophylactic measure which, if faithfully carried out in every community, would sooner or later annihilate small-pox. It is scarcely necessary to add that the measure referred to is general vaccination.

VACCINIA.

Synonym—Cow-pox.

A disease identical with or analagous to variola occurs in several species of our larger domestic animals, and is characterized by a limited eruption of pustules. These commonly occur about the fetlocks in horses, and upon the udder and teats in the cow. Vaccination, or the inoculation of cow-pox lymph, produces a mild disease in the human species, which has been found to furnish a certain degree of immunity from small-pox. Vaccinia may be produced in the human subject either from lymph taken directly from the heifer (bovine virus), or from a vaccine vesicle thus produced (humanized virus), and transmitted from one person to another through many generations. The dried crust of the vaccine pustule may also be used to furnish the necessary virus for vaccination.

In the performance of this simple operation it is only necessary to gently remove by scraping the horny layer of the epidermis at a given point and apply the lymph to the abraded surface. To effect this a clean needle may be employed and a number of crossed scratches made upon the surface of the skin, or what is preferable, an abrasion made no larger than a small split pea, by means of a dull lancet or clean pen-knife blade. It is neither necessary nor advisable to draw blood in the operation, and if care is taken a sleeping infant can often be vaccinated without being awakened, or without being made to cry if awake. The left arm, at the insertion of the deltoid muscle, is the site commonly selected, and from one to three abrasions may be made. One vesicle running a typical course will often afford complete protection for many years, but three vesicles will afford a more certain immunity.

The development and course of the vaccine vesicle is strikingly similar to that observed in the cutaneous lesions of variola. With the exception of the mark which simple scratching of the skin would produce, nothing peculiar is noted, as a rule, until the third day. A slight redness and swelling of the wounded skin then becomes noticeable. On the following day the epidermis is slightly elevated by an effusion of clear serum, and the vesicle thus produced steadily increases in size from day to day, and becomes depressed in the centre. The outline of this lesion is circular, elongated, or irregular, in accordance with the shape of the abrasion previously made. The vesicle attains its greatest development upon the seventh or eighth day. The liquid contents, owing to the peculiar fan-like mesh-work of the interior of the vesicle, do not escape readily if the epidermis is pricked, but ooze out slowly in the form of a mucilaginous drop. About the ninth day the clear serum appears turbid, the vesicle rapidly becomes pustular in character, and considerable redness and swelling is noted in the immediate vicinity. Its appearance now is indeed like "a pearl upon a rose-leaf." By the eleventh or twelfth day the vaccine pustule has become yellow in hue, and in the umbilicated portion a crust has begun to form. With the development of the areola more or less fever and constitutional disturbance is noted, and when several vesicles are present, the local pain and discomfort is usually considerable. From the swollen inflammatory patch upon which

the lesions are seated, a dermatitis may extend down upon the arm or into the axilla, especially if external violence has been encountered, and occasionally a severe and even alarming erysipelas may develop. Commonly the local and general symptoms subside with the desiccation of the pustule. A dark or mahogany colored crust gradually forms and falls about the nineteenth or twentieth day, leaving a scar which is at first red, but which in time becomes white, depressed and foveolated.

In connection with vaccination, a number of so-called vaccinal eruptions are liable to make their appearance as a direct or indirect result of the operation. In certain cases vesico-pustules form not only at the point of introduction of the vaccine virus, but in its immediate vicinity, and occasonally a general eruption of similar lesions is noted. When the vaccine vesicle is at its height, it is not unusual for erythematous macules to appear upon the arm or other portions of the body, and even the papules of multiform erythema or an acute eruption of urticaria may occur at this time.

As an incidental result of the constitutional disturbance attending the development of the vaccine vesicle, eczema, psoriasis and other cutaneous affections may be induced whenever a predisposition to their occurrence already exists. There is no ground whatever for the belief entertained sometimes by the laity that these affections are transmitted by means of the vaccine lymph. It is true that syphilis may be and has been repeatedly transmitted through the use of lymph mixed with blood, or a crust taken from the arm of a syphilitic infant, but in the great majority of cases where an outbreak of syphilis appears shortly after vaccination the disease is hereditary in nature, and the appearance of its cutaneous manifestations is merely evoked by the vaccinal disease.

VARICELLA.

Synonym—Chicken-Pox.

Varicella is a well-known exanthematous affection of infancy and childhood. The name suggests a relationship to variola, or small-pox, and there exists indeed a resemblance beteen the two. Until the inoculation of small-pox prevailed in Europe, varicella was regarded as a mild form of this disease, and its history is intimately associated with that of variola.

At the beginning of the eighteenth century Lady Wortley Montagu, the wife of the British Ambassador at Constantinople, became acquainted with the practice of inoculating small-pox in order to lessen the severity of the disease, and having subjected her own children to the operation, advocated the practice with such earnestness that it soon prevailed not only in England but throughout Europe. It was at this time that the attention of physicians became directed to the study of varicella, and the question of its specific nature assumed a vital importance in determining the value of inoculation. This practice, so startling an innovation upon established custom, naturally met with opposition. Its opponents, observing that patients after having contracted the disease by inoculation were subsequently attacked with what they considered to be small-pox, claimed that inoculation possessed no prophylactic value. Its supporters, on the other hand, claimed that the pustular and

vesicular eruptions sometimes occurring after small-pox were not cases of true variola, but distinct affections, to which they gave the names varioloid and varicella. After Jenner's discovery of vaccination the controversy respecting the identity of variola and varicella raged more fiercely than ever. At the present day there are none in the medical profession who claim that varioloid, or the modified form of small-pox which sometimes occurs after vaccination, is distinct from variola. As to varicella, however, the majority of physicians, who are able to pass judgment on the question, are agreed that it is a distinct specific disease.

Varicella is pre-eminently a disease of childhood, and is very seldom met with in adult life. It is rarely if ever seen twice upon the same individual, although an attack of mild small-pox or varioloid may either precede or follow the eruption. The serum contained in the vesicles is not readily inoculable, and the eruption has no prophylactic or modifying influence over future attacks of small-pox.

Varicella occurs sporadically and in epidemic form. In large cities cases are always to be found, and epidemics of this disease occur with far greater frequency than do those of small-pox. Some claim that the disease is not contagious, and assert that its occurrence among several children of a family is merely the result of epidemic influence. It certainly does not appear to be as contagious as the other exanthemata. I have known three out of five young children to be affected in one household while the other two escaped. The period of inoculation is supposed to be longer than that of small-pox or measles. During this period the child may evince some signs of languor, but generally there is only a slight fever of a few hours' duration preceding the eruption, and very frequently the eruption itself is the first indication that the child is not in perfect health. The eruption at the outset presents small red macules or slightly-elevated papules upon the body, and shortly after upon the face and extremities. In a few hours a minute vesicle is noted in the centre of each red macule, its shape varying in different cases, being either conical or hemispherical, and usually from a pin-head to a small pea in size. The vesicles are disseminated and vary in number from a few score to several hundred. They are quite superficial, covered by a tense layer of epidermis, and surrounded usually by a narrow zone of inflammatory redness. The contained fluid is clear, colorless, or slightly tinged with yellow, and of an alkaline reaction, differing in this regard from the acid serum of sudamina. The vesicles after the first day may appear cloudy, but they never become purulent. The fever subsides on the third or fourth day, unless kept up, as is often the case, by successive crops of vesicles. These may become flaccid through absorption of their contents when one or two days old, or they may burst from excessive distension or be scratched by the patient, in which case they dry in the centre and form yellowish or brownish thin horny crusts. At this stage new papular lesions may appear, and aborting in their course, fail to become vesicular. Some of the vesicles enlarge by peripheral extension and form bullæ, which are umbilicated when the centre of the vesicle has begun to dry. The crusts fail in a few days or are scratched off by the patient in his endeavors to alleviate the pruritus or burning of the skin, which is always present in greater or less degree. Beneath is left a small, circular and slightly-depressed patch of reddened

skin. Scars sometimes remain through life, presenting a characteristic form and a peculiar whiteness and softness.

The diagnosis of varicella is easily made if the eruption is seen at the outset. The red papules noticed on the child's body or neck on the first day are suggestive of mosquito bites, and are frequently mistaken for them. The development of vesicles, however, shows that the eruption is either chicken-pox or the vesicular stage of mild small-pox. If an epidemic of variola is in progress the diagnosis of the case becomes a matter of considerable importance, and an error may prove unfortunate for both patient and physician. Although variola is as a rule a far more severe disease than varicella, it may run an extremely mild course, and does so frequently when modified by a previous vaccination. In such a case the differential diagnosis is not always easy, but the chief points upon which it may be established will be seen by reference to the following comparative table:—

Varicella.	Mild Variola or Varioloid.
Is not inoculable as a rule.	Is readily inoculable.
Attacks children recently vaccinated.	Rarely occurs until years after vaccination.
Is unaffected by previous vaccination.	Is modified, if not prevented by vaccination.
Vaccination will succeed after variella.	It will not usually succeed after small-pox.
No prodromal fever of any consequence.	Initial fever lasting two or three days.
Fever begins with the outbreak of the eruption.	Fever abates when the eruption appears.
Eruption spreads rapidly over the body and vesiculation takes place on the first day.	Eruption spreads slowly from face to extremities, and the vesicles develop gradually.
Eruption rare in mucous membrane.	Usually seen upon pharynx.
Vesicles are superficial and have no hard base.	Papules are deep-seated and feel "shotty."
Occurs chiefly in children.	Occurs chiefly in adults.

The treatment of Varicella consists simply in judicious nursing.

ERYTHEMA SIMPLEX.

This is a common and usually an insignificant affection resulting from a great variety of causes, and rarely demanding active treatment. It consists in an eruption of bright red patches, which gradually change to a duller hue. They are circular or irregular in outline, of variable size, and occur upon various portions of the body. These patches are the result of an active or passive dilatation of the capillary vessels, and usually run an acute course. The affection may be idiopathic and result from the action of heat or cold upon the skin, from friction, pressure or other external irritating agents, or it may be symptomatic of some internal disorder. It frequently occurs among infants and young children as the result of



ERYTHEMA EXOFLIATIVUM.



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ERYTHEMA BULLOSUM

ARTOTYPE, E. BIERSTADT, N. Y.

gastric or intestinal disturbance, and in adults is not infrequently due to the ingestion of certain drugs or unusual articles of food.

DIAGNOSIS. Simple erythema is not apt to be mistaken by the physician for any other form of skin disease, but the significance of the eruption is not always appreciated. If carefully studied it may serve to give a clue to some severe and impending constitutional disease. For instance, a peculiar erythematous rash occurring upon the extensor surfaces of the extremities, especially about the joints, is sometimes a prodrome of variola.

When erythema occurs in the form of numerous small circular spots upon the trunk or extremities, it has been designated as roseola. This form may be due to dental or gastro-intestinal irritation, or it may appear as the earliest cutaneous manifestation of constitutional syphilis. In such a case the term erythematous or macular syphilide is preferable to the old expression, syphilitic roseola.

In view of the prevailing tendency to depart from the Willanic or lesional classification of skin diseases, the term erythema must be regarded as a mere symptom rather than as an independent disease, and the duty of the physician is to diagnosticate between the multitude of causes which may give rise to the cutaneous congestion.

TREATMENT. To determine whether the congestion of the skin is the result of an external or an internal cause is the first step in the treatment of erythema. When it results from the pressure of a truss, a splint, or other orthopædic apparatus (*E. traumaticum*) the interposition of canton flannel or absorbent cotton between the hard substance and the skin may prevent the occurrence of eczema or ulceration from the pressure exerted. The erythema resulting from the action of heat or cold (*E. caloricum*) speedily disappears with the cessation of the cause. Redness and irritation of the skin is sometimes produced by wearing new stockings and undergarments containing aniline dyes (*E. venenatum*). To relieve this a change in the character of the clothing is often necessary.

For sympathetic erythema, which is often persistent and sometimes associated with a slight burning sensation, a removal of the cause is of the first importance. For the flushing of the face, which is apt to occur in women at the time of the menopause, the inhalation of amyl nitrate and the administration of mild doses of belladonna have been found useful. Locally, a dusting powder, will commonly act as a *placebo*, and a lotion of lead and opium, if called for by an annoying sensation of heat in the part affected, will prove of benefit.

ERYTHEMA EXFOLIATIVUM. In rare instances erythema may invade the whole surface of the skin and cause a general desquamation. The attacks may recur at intervals, and any one of them might be hastily mistaken for scarlet fever. The following case will serve as an illustration of this peculiar form of the affection:—

Chas. O., æt. 23, German.—By occupation, a porter.—The patient had a sallow complexion, but was strong and apparently in good condition. He gave the following history: In his youth, from the age of four to fourteen, he had suffered every summer from a general "peeling of the skin." The attack would usually confine him to his bed for five or six weeks, and he remembers that large sheets of skin could be removed entire from his body.

At the close of each attack, the thick skin of the soles of the feet would separate in two portions, one from the ball of the foot and one from the heel. His four brothers and one sister were all healthy, as was the patient himself, between these annual attacks. From the age of fourteen to twenty-two he was in good health, and free from his early trouble, with the exception of a single mild attack, which occurred when about nineteen. During the past six months he had at least six mild attacks, in such rapid succession that the erythema would sometimes appear upon the body before the palms had finished scaling as the result of a former attack. When first seen by me (January 20), the patient stated that on the morning of the previous day he had awoke to find his body and extremities reddened, as was usual at the beginning of an attack. An examination revealed a vivid erythema upon the sides of the trunk, the neck, arms, and thighs. The skin on the palms was dry and harsh, and apparently beginning to separate. (This condition resulted from a previous attack, which occurred a few weeks before). It began to exfoliate shortly after, and presented the appearance often seen after scarlatina. The erythema quickly became universal, with the exception of the face, penis, and back of hands, and was immediately followed by a desquamation of the epidermis. On the scalp it occasioned an acute attack of pityriasis. On January 26th the attack was waning; it had been severer than his recent attacks, but did not compare in severity with those which he had as a boy. The skin of the body appeared of a dusky red hue, indicative of venous congestion. The skin on the inner side of the thighs and gluteal region was quite dark, and on close examination presented a slightly powdery surface. Drawing the finger nail rapidly over it a number of times produced at first whitish, chalky lines, which rapidly assumed a bright red color, contrasting strongly with the surrounding livid hue. There was no evidence of urticaria, and this irritation of the skin was unaccompanied by itching. The knees appeared whitish from the presence of thin, adherent scales, and there was a certain amount of pityriasis on various portions of the body.

On March 2nd, patient came to me with another attack. Two days before he had felt perfectly well. He slept well that night, but awoke on the following morning with the redness of the whole body, excluding head, hands and feet. The skin was hot as well as red, and he experienced a burning sensation, especially at the flexures of the joints. He felt weak during the day, and complained of nausea, but again slept well. When seen by me the brightness of the erythema was already fading, and the skin appeared like that of an Indian, or as it sometimes appears after staining with chrysophanic acid. His red flannel underclothing, which had lost its brightness by long use, very nearly matched the shade of the skin. The hyperæmia was intense, but of a passive character, and the body contrasted strongly with the face, which was pale and sallow. On March 5th the purplish redness had faded, and where the skin was naturally thin, the desquamation was beginning at numerous points, in the form of small siliquose elevations of the epidermis. From these points the desquamation proceeded centrifugally, leaving patches of normal skin, surrounded by an irregular white line of exfoliating epidermis. On March 7th there were islands, not of denuded skin, as before, but of old epidermis. These remaining patches appeared of a dirty yellowish-

brown color, and were dotted by the siliquose elevations of epidermis, and small circular spots, from which the epidermis had fallen. The patient was feeling perfectly well.

ERYTHEMA INTERTRIGO.

A simple erythema is frequently produced by the contact and friction of two opposing surfaces of skin. When, in such cases, heat and moisture are present to an unusual degree, a maceration of the epidermis and the production of a raw surface frequently takes place and gives use to that condition which is usually designated by the term "intertrigo." The affection is very common in infancy, when the skin is delicate. It also occurs in adult life, especially among the corpulent. The genital region and the gluteal furrow is its most common site, but in very fat infants it is also observed in the folds of the neck and in the flexures of the joints. In women with large pendulous breasts, and especially among those who are nursing infants, it is very common. In short, it is liable to occur wherever two surfaces of skin are in close apposition and inclined to rub against each other.

In hot weather the affection is always aggravated, but it is by no means confined to this season of the year. It usually develops suddenly, or at least increases rapidly in severity as soon as the parts begin to appear chafed. The natural heat and moisture of the opposing surfaces induce congestion of the skin, and this naturally increases the amount of heat and stimulates the perspiratory glands to excessive action. The skin now becomes deeply reddened, bathed in a serous discharge, which emits a very disagreeable odor, and in the deepest portion of the skin a painful fissure is very apt to form. In infants whose urine or fœcal discharges are allowed to remain in contact with the skin, a raw or even an ulcerated surface may be produced, and this is more especially apt to be the case if the urine is very acid, or the discharge from the bowels is loose and acrid in character. The affection may be slight, and disappear spontaneously in a few days, but generally it tends to become aggravated, especially in the case of infants, and often persists for months or until the most careful treatment is instituted.

Diagnosis. The intertrigo of infants is readily recognized as such, but in certain cases where a tendency to eczema exists, the skin becomes gradually thickened and tends to remain red and scaly after the moisture of the parts has disappeared. Just at what period the intertrigo may be considered as having become transformed into an eczema is not always easy to determine. The redness and moisture are symptoms common to the two affections, but the infiltration of the skin is not met with in pure intertrigo, and when present must be considered as indicative of eczema.

Treatment. The successful treatment of intertrigo is by no means as easy a matter as one with little experience might at first imagine. The indications are to keep the parts clean and dry and the opposing surfaces separated for a time by the interposition of some unirritating substance, be it linen, cotton, powder or salve. In infants these indications are not always easy to fulfil. It is difficult to impress upon the mind of some mothers and nurses

the great importance of removing the napkins *immediately* after the passage of urine or evacuation of the bowels. A few minutes' contact of the urine or fœces with the tender and inflamed skin will often destroy the good results of the most careful treatment. When the skin is but slightly inflamed, the parts may be occasionally washed with castile soap and water, but when there are abraded surfaces this plan of treatment is apt to aggravate the trouble, and especially where there is a tendency to eczema, water should be proscribed. A dusting powder of the blandest character is usually of the greatest service in the treatment of these cases, and should be freely applied to the surface. Where there is but slight moisture lycopodium is doubtless the best application, but when a powder of an absorbent character is needed, corn starch may be used in preference to the ordinary starch powder, as it is less gritty, or what is perhaps still better, prepared chalk or fullers' earth. When there are raw surfaces, a powder prepared by saturating French chalk or talc with the tincture of calendula, and slowly drying the same, may be applied with excellent results, the parts being separated by the interposition of a piece of soft linen cloth slightly greased with mutton tallow to prevent its adherence.

For the intertrigo of adults a similar plan of treatment may be adopted, but in all cases the physician must see that his directions are thoroughly carried out or success will be unattainable, and even when the cure is apparently accomplished, the possibility of a relapse must be guarded against.

ERYTHEMA MULTIFORME.

The term erythema indicates a pathological congestion of the skin. When hyperæmic redness is the sole lesion in any case, the affection is erythema *simplex.* When the congestion of the skin is accompanied by a peculiar plastic exudation, we have an entirely different affection, and one to which Hebra applied the distinctive title of erythema *exsudativum multiforme.* Although the generic term erythema, adopted by Willan in his lesional classification, is still in use, the reader must bear in mind that erythema *simplex* and erythema *multiforme* are not mere varieties of one cutaneous disease, but that they are quite independent affections, according to a classification based on etiology or pathology.

Erythema multiforme is an acute inflammatory affection, characterized by a marked degree of superficial plastic exudation. This leads to the rapid development of either papules, tubercles, elevated rings or diffused marginate patches. In exceptional cases, vesicles and bullæ develop upon the surface of these lesions. The varying character of the eruption has led to the establishment of a number of clinical forms which differ from one another in external appearance. Chief among these may be considered three types of the affection, which are known as Erythema *papulatum*, Erythema *bullosum*, and Erythema *nodosum.*

ERYTHEMA PAPULATUM. This is the most common form of Erythema *multiforme* and occurs chiefly on the backs of the hands and forearms. In some cases it appears on the feet and legs as well. The lower extremities are rarely affected alone. In E. *tuberculatum* the



ERYTHEMA MULTIFORME

papules are simply larger and firmer. They present at times a whitish summit and appear like bullæ containing gelatinous contents. In a case which I recently saw, the tubercles on the backs of the fingers were dark and purpuric in character. In E. *annulatum* a large flat papule or disk of exudation presents a depressed central area, and in rare instances, one or more outer circles form, and by exhibiting a variation in color give rise to the name E. *iris*. E. *marginatum* is applied to the eruption when it appears in the form of diffused patches with an abrupt and elevated border which is usually scalloped from the coalition of smaller circular patches.

The following case will illustrate the features of the annular form of erythema :—W. R., æt. 34, American.—By occupation, a pilot.—This patient was sent by Dr. Robert Abbe to a meeting of the New York Dermatological Society, and afterward kindly placed under my observation. He was a large and powerful man, apparently in perfect health. A searching examination made by Dr. Abbe failed to reveal any history or evidence of syphilis. He had never had any eruption elsewhere upon the skin, and with the exception of a slight attack of rheumatism, had never been ill. His tongue was clean, his appetite good, his bowels slightly constipated, and his urine clear. He stated that, six weeks previously, a small, itchy red spot appeared in the centre of his left palm, and gradually increased in size. A few days later two similar spots appeared in right palm. About six months before this, the patient had suffered from a similar, though milder attack. There were, at that time, two or three circular, non-elevated patches in each palm, which itched exceedingly, and disappeared in about a month without treatment. No scaling followed. Upon examination of the palms during the second attack, the centre of each was found to be the seat of a nearly circular, purplish-red ring. The circle in the left palm (see illustration in first edition), presented an irregular border, and appeared as though one or two small rings had coalesced with the central circle by centrifugal extension. On the right palm were three small lesions, in addition to the central circle, two being near the latter, and one on the long finger, near its base. The e small lesions were just beginning to grow annular by a fading of the color in the centre. The central circles were of half dollar size, and not at all elevated, although Dr. Abbe assures me that they were so at the outset. Their most striking feature consisted in a double border, the inner one being of a purplish-red color, and evidently indicating the height of the exudative process, the outer one appearing whitish, like the epidermis raised by a blister. The lesions were not very striking in appearance, especially the incipient ones. But the purple band of the central circles showed very plainly when the fingers were forcibly extended, so as to blanch the surrounding tissue, or when the palm was rubbed briskly for a few seconds with the corner of a dampened towel. The eruption was accompanied by a severe and annoying itching, which kept the patient rubbing or picking at the palms, but the epidermis was not at all excoriated.

The treatment adopted at first, in this case, was purely expectant, but as the eruption showed no tendency to disappear of its own accord, as it had done six months before, the patient was ordered nightly frictions with green soap, to be followed by the inunction of

mercurial ointment. This appeared to have no effect, and on January 6, two weeks after the photograph was taken, the rings were increasing in size, and very itchy, especially after washing the hands. Rochelle salts internally and chrysophanic acid ointment locally were ordered, and the eruption disappeared after a duration of ten weeks.

In the beginning, the eruption of Erythema multiforme, whether papular, annular or marginate, is seated upon a slightly swollen and reddened base. Within twenty-four hours the encircling hyperæmia subsides, and leaves the eruption contrasting strongly with the normal skin. The color changes gradually from a bright red to a dull, livid or purplish hue, and the affection runs its course in from one to six weeks, according to the intensity of the exudative process. An average case will last from two to three weeks. Frequently the lesions develop successively, and the attack is thereby prolonged. Recurrent attacks at certain seasons of the year are not uncommon. The outbreak of the eruption is often associated with malaise and slight fever, and according to my experience, the eruption is usually quite annoying on account of the burning sensation or pruritus, which is nearly always present. Most writers, however, speak of the subjective symptoms as being insignificant.

The causes of erythema papulatum are rarely apparent. It is frequently met with in the spring and autumn, and the sudden changes of temperature so common in this climate seem to me to be an etiological factor of importance. In dispensary practice I have had occasion to note that immigrants are a class peculiarly liable to be affected. In many cases a lowered tone of the system is evident, but the disease does not seem, like urticaria, to be attributable to dietetic errors. It is generally met with in youth and middle age, and neither sex is exempt.

Diagnosis. Erythema papulatum occurring in a well marked and typical form is easily recognized by any one at all familiar with the clinical appearance of the affection. In many cases, however, it might be readily compounded with urticaria, eczema or syphilis. From urticaria, to which it is closely allied in its pathological nature, it may be distinguished by the persistence of its lesions and by the subjective sensation, which is one of burning rather than itching. The papules or patches are never white like the wheals of urticaria, nor do they ever appear and vanish as suddenly. When eczema occurs in small imperfectly developed patches upon the backs of the hands, and on the forearms, a difficulty in diagnosis might arise at the outset. But the speedy appearance of a tendency to moisture, or the inevitable formation of scales would greatly lessen the resemblance, inasmuch as the lesions of papular erythema never present an exuding surface, nor become scaly. They always possess moreover an abrupt margin which is very rarely met with even in small patches of eczama.

Treatment. The treatment of the affection may be expectant or consist in good nursing. Warm baths are beneficial. A teacupful of carbonate of sodium may be added to the water when the eruption is extensive and accompanied by pruritus. A linen cloth saturated with a lead lotion may be applied to the affected skin at the outset, when the inflammatory symptoms are very acute. Later a dusting powder may be prescribed with a view to divert-

ing the patient's mind, or if the burning sensation is very annoying, the following ointment may be gently applied with a certain amount of benefit:

℞ Salicylic Acid, . . . 2 parts.
Camphor, ... 2 "
Ointment of Rosewater, . to 50 "
M.

ERYTHEMA BULLOSUM. Hydroa, a term first employed by Bazin, has gradually come into use during the past twenty years. It is generally applied to certain cases of vesicular or vesiculo-bullous eruption occurring upon an erythematous base and possessing clinical features which serve to distinguish them from herpes and from pemphigus, with which affections they were formerly confounded. The disease is not a common one, and while the cases met with present salient features which mark their identity, they vary in their clinical aspect to such an extent that a concise definition cannot be given which will include all forms of the affection. For the most part they present the features of multiform erythema with the vesicular or bullous development super-added. The term erythema *bullosum* is therefore preferable to the term Hydroa, which does not suggest the fact that the affection is but a phase of erythema *multiforme*. The leading characteristics of erythema bullosum are its symmetrical distribution, its peculiar locality, its tendency to recur at longer or shorter intervals, and the constitutional derangement which usually accompanies the eruption It begins, as a rule, by the sudden development of erythematous papules or patches, upon the central portion of which a single vesicle or group of vesicles is rapidly formed. These are usually of large size and hemispherical. They contain at first clear serum, which in a few days becomes cloudy and gives to the patches a whitish or even a yellowish aspect. There are generally some isolated vesicles or bullæ, and these do not always spring from an erythematous base. They may attain the size of pemphigus bullæ, and become surrounded as they mature, by a narrow zone of inflammation. The groups of vesicles tend to become depressed in the centre, and sometimes an advancing vesicular margin is noted. A tendency to successive crops of vesicles is common, and when the eruption is subsiding at one point, a relapse may take place upon some other portion of the body.

The serous contents of the vesicles and bullæ tend to become absorbed and leave merely a desquamating epidermis, but when the lesions are ruptured by scratching or other external violence, a yellowish crust or a dark scab may form. The subjective symptoms, in a mild case, consist chiefly in a burning sensation, but in many cases, and especially in those which run a more chronic course, the itching may be intense. There is generally a marked impairment of the general health preceding the attack, and while the eruption is present, the patient is usually wholly unfitted for his customary duties. There occur now and then rheumatic complications, and effusion into the knee joint has been reported. The disease commonly runs an acute course, the successive crops of vesicles disappearing in a few weeks or months, but it may persist for years. It is non-contagious, and though in many instances a severe affection, it is rarely, if ever, fatal.

The favorite seat of erythema *bullosum* is upon the extensor surface of the forearms and hands, the face and ears, the genitals, knees and feet. In many cases the oral cavity is likewise affected, the uvula and soft palate being frequently the seat of vesicles, or presenting an inflamed or eroded appearance. The affection is apt to attack young persons, and appears to be most common in the early winter and early summer. Some may have a number of attacks during the year, and cases have been reported where an annual attack has occurred since childhood. The causes of the affection are obscure, but it is evident that the eruption is due to derangement of nerve-centres, and not dependent upon any blood changes.

The diagnosis is not difficult, but as there are no sharp boundary lines between herpes, erythema *bullosum*, and pemphigus, cases often occur which illustrate the relationship of the three affections named, and a question might arise as to the most appropriate term for a given case. The main features of the three affections may be contrasted as follows:—

	Herpes.	Erythema bullosum.	Pemphigus.
Lesion.	Vesicles in groups.	Large vesicles or bullæ isolated or grouped.	Bullæ, always isolated.
Location.	Face and genitals only.	Face, forearms, scrotum, knees and feet. Rarely general.	All portions of the body.
Course.	Acute, lasting but a few days.	Acute or chronic, lasting a few weeks or longer.	Chronic, lasting for years.
Treatment.	None required.	Treatment may hasten the cure.	Is rarely cured, and often fatal.

The chief aim of treatment in a case of erythema *bullosum* should be to restore to the patient his natural degree of health of mind and body, taking little account in most cases of the eruption upon the skin. The nervine tonics, such as arsenic, quinine, and cod-liver oil, are highly recommended, and with these, and the beneficial effects of a complete cessation from work and worry, with perhaps a change of scene when it is practicable, a speedy cure may be expected. When the patches are in a highly inflammatory condition, the common lead and opium wash is of service, and when itching is a prominent symptom, the parts may be rubbed with camphorated oil.

ERYTHEMA NODOSUM. This is described by some as distinct from erythema *multiforme*, but its nature is the same however different may be its appearance. Although it is almost always met with alone, it may co-exist with the papular or marginate forms. It is usually met with upon the extensor aspect of the legs and arms, and is characterized by the appearance of one or more painful swellings, varying in size from an almond to a small egg. These appear usually in connection with marked general malaise, and more or less fever, develop rapidly and run a course of from two to three weeks. Sometimes a succession of



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URTICARIA.

ARTOTYPE, E BIERSTADT, N. Y.

lesions will prolong the disease. The nodose swellings reach their height in two or three days, and at this time present a peculiar bluish red appearance, somewhat resembling a recent contusion.

The border is never abrupt and the color gradually shades off into the surrounding skin. The subjective sensation is of a burning pain, the affected skin is exquisitely tender, and when the lesions are numerous upon the shins the patient becomes scarcely able to walk. The tumors may remain in this condition for two or three days, when the tension of the skin lessens, the swelling subsides slightly, the color becomes duller and sometimes passes through the variegeted changes which are noticed after a bruise. Children and young women are most apt to suffer from the affection, and more especially those who are weakly and ill nourished.

Diagnosis. When the affection occurs, as it does in the vast majority of cases, over the shins, it might be mistaken at first sight for a number of contusions. But the absence of any history of external violence, together with the marked constitutional disturbance, will serve to exclude such a diagnosis. Abscesses, boils and the gummy tumors of syphilis bear a slight resemblance to the lesions of erythema nodosum, but the latter are too highly colored for incipient abscesses, too large as a rule for furuncles, and too acute in their course for gummy tumors. When the lesions occur, as they may do, upon the face or body, the diagnosis is more difficult and can only be made after a most careful study of the case.

Treatment. As the disease runs its course and terminates spontaneously if left to itself, our chief aim in treatment is to ease the suffering of the patient, which is usually considerable. It is probable also that judicious treatment will shorten its natural course. Rest in bed, with hot applications to the painful tumors, is of the first importance. Aconite may be administered in small doses at the outset and followed by iron and mineral acids. Locally, Piffard recommends the application of hamamelis and arnica, which may be employed to advantage in connection with the hot compresses. Finally, when the tenderness of the lesions upon the legs has subsided, the firm pressure of a smoothly applied flannel bandage will hasten a cure.

URTICARIA.

(*Synonym—Nettle Rash. Hives.*)

Urticaria is an affection of the skin, in which certain peculiar lesions called "wheals" appear suddenly with or without apparent cause, and after a brief duration of a few hours disappear almost as suddenly as they came. A single outbreak of these wheals may constitute the whole of the attack, but generally they appear as successive crops, and thus the affection assumes a chronic form. The wheals are solid inflammatory elevations of the skin of a perfectly white or pinkish hue, with an abrupt margin and a bright red hyperæmic halo. They are commonly circular or oval in shape and vary greatly in size. In a mild case they are no larger than the tip of the finger, but in a severe acute outbreak they may occur in

patches of irregular form, and cover portions of the body as large as the palm of the hand. In certain cases the whole trunk will be covered either by the wheals themselves or by the active hyperæmia which surrounds them. Occasionally the wheals are linear in form, especially when induced by the pressure or friction of the clothing. Though commonly raised no more than an eighth of an inch above the level of the skin, in rare instances they form tumors as large as an English walnut (giant urticaria).

Accompanying the lesions there is always a burning or stinging sensation, which is extremely annoying, and frequently there is such an intense pruritus that fierce scratching and excoriation of the skin is inevitable. During an attack the skin over the greater portion of the body is abnormally irritable, and the scratching only serves to increase the number of wheals. The affection occurs at all ages, but the acute form is more common in childhood. The eruption may exist alone or in connection with some other disease of the skin.

Etiology. There is no affection of the skin which may result from so many distinct causes as urticaria, and as success in its treatment depends largely upon the discovery of the cause, an acquaintance with its various etiological factors is of the highest importance. The eruption, or at least the peculiar irritability of the skin which precedes and favors the eruption is always the result of reflex nervous irritation, and the exciting cause may act either within or without the body.

The external causes of the eruption may be of a vegetable, animal, mechanical or meteorological nature. The contact of the skin with certain species of *Urtica* or stinging nettle is the most evident of all the external causes of urticaria or nettle-rash, and the one which has given to the disease both its scientific and its popular name. The stinging power which the nettle exerts is supposed to reside in minute tubular hairs or prickles, which transmit a venomous fluid when pressed. It is well known that the bites of mosquitos, bedbugs, lice, and fleas often evoke urticarial wheals, not only at the seat of attack but upon other portions of the body. In the case of the two latter pests the exciting cause of the eruption is not infrequently overlooked. The eruption may result also from contact with the slimy secretion of the jelly-fish, and with certain hairy caterpillars of the genus Bombyx. Upon a healthy skin a linear wheal or welt can readily be produced by giving the skin a sharp cut with a switch. Upon the skin of certain susceptible persons a somewhat similar lesion may be produced by the pressure or friction of clothing or mechanical irritation of any sort. Letters traced upon the skin with the finger-nail, or any pointed instrument, will appear in white relief upon a pink background in the course of a minute or two (*U. factitia*). The application of leeches, and the puncture of echino-coccus cysts have repeatedly been followed by the development of urticaria. The disease sometimes coexists or alternates with asthma, in which case it is very apt to be induced by exposure to cold air.

The internal causes of urticaria are even more numerous than the external, although less susceptible of demonstration. They may be classified as dietary, medicinal, emotional or morbid in character, and the resulting eruption must be regarded as a purely symptomatic one. Urticaria from the use of certain articles of food usually appears in an acute form, with or without fever. In some instances the eruption appears with a marvellous suddenness, even



URTICARIA PIGMENTOSA

before the offending substance has been fairly swallowed, and from this it would seem probable that the peculiar irritation of the nerves of taste is reflected immediately to the skin, and that the eruption is not due to the absorption of the substance and its circulation through the blood. The articles of food which have been observed to produce this singular effect upon the skin in the case of certain individuals are eaten by others with perfect impunity. The list of such articles is an extensive one and comprises fish, clams, oysters, lobsters, crabs, pork, eggs, honey, mushrooms, cucumbers, berries, fruit, etc. Various drugs, when taken internally, are liable to provoke an exanthematous eruption (Dermatitis medicamentosa) which is often of an urticarial character. Quinine, cinchonidia, salicylic acid, belladonna, valerian, copaiba, chloral, santonine and hyoscyamus are among those whose action must be watched most carefully with a view to their incidental effects upon the skin. Urticaria from mental excitement and from some obscure affection is possible, and this fact must be sometimes considered in our treatment of a case.

Diagnosis. If a typical case of urticaria is seen when the eruption is at its height a difficulty in diagnosis could hardly occur, as the wheal is a lesion which is peculiar to urticaria and met with in no other affection of the skin. But these lesions are so evanescent in character, both in the acute and chronic forms of the disease, that, like the toothache which so often disappears at the dentist's threshold, they are frequently invisible when the physician is called upon to examine the patient. In chronic urticaria the diagnosis must often be made when no wheals are present, but the characteristic history which the patient gives of lesions occurring suddenly, itching or burning severely and disappearing speedily will usually lead to a correct appreciation of the nature of the eruption. Moreover, in chronic urticaria the excoriations of the skin which are left after the primary lesions have gone will serve often as a valuable aid in diagnosis. Since patients subject to urticaria present a characteristic irritability of the skin, the following test may be resorted to in all cases where a pruritic condition of the skin is complained of without apparent lesions. If the finger-nail be quickly drawn over the skin in parallel or crossed lines, or the skin lightly scratched with any blunt pointed instrument, a hyperæmic surface will be instantly produced, and in a few seconds a number of ridges of a pinkish or whitish hue will appear. Occasionally patients are met with of a highly nervous temperament upon whose skin this factitious urticaria can be developed at will. (*See plate.*)

Erythema multiforme, an affection closely allied to urticaria, may be distinguished by the persistence of the lesions. Giant urticaria might be mistaken for erythema nodosum in the rare cases in which they occur, but the course of the lesion will here again serve as a guide. Upon the face urticarial lesions often produce redness and swelling of the eyelids simulating erysipelas, but the affection is never ushered in by a chill nor accompanied with a notably elevated temperature.

Treatment. It has been wisely remarked that the difficulty in curing a disease is always in direct proportion to the number of remedies which have been recommended in its treatment. Urticaria is no exception to this rule. Its frequent obstinacy is attested by the

experience of nearly every physician, and yet there is scarcely an affection of the skin for which so many drugs have been vaunted, tested and discarded.

Of the treatment of acute urticaria little need be said. The cause is usually ephemeral and a purely expectant plan of treatment, though not to be recommended, will be followed in most cases by a speedy return to health. Since the eruption is so frequently due to the ingestion of irritating substances, the main indication for treatment is to evacuate the alimentary canal. The emetic which is so commonly prescribed, though rarely until after the offending substance has passed through the stomach, too often fails to remove the source of trouble, and only relieves the eruption by its temporary effect upon the cutaneous circulation. In urticaria *ab ingestis*, particularly in children, a dose of rhubarb and magnesia, or of castor oil, will usually do far more good than an emetic, since the irritation which provokes the eruption is more frequently intestinal than gastric. In acute urticaria from other causes treatment consists almost wholly in relieving the distressing pruritus during the continuance of the attack. For this purpose one of a great variety of soothing applications may be selected. In my experience alcohol has proved to be the most convenient and beneficial lotion, and to obtain the best results it should be merely dabbed upon the skin with a sponge or soft cloth and allowed to evaporate, the patient being cautioned not to rub the affected parts. Cologne water, sweet spirit of nitre, vinegar and dilute nitric acid have also been highly recommended. The dependence of urticarial wheals upon contraction of the cutaneous muscular fibres would lead one to regard the local use of chloroform as of probable value, and this has been verified by experience. Either of the following applications may be employed:—

℞.	Chloroform . . .	10	parts.	℞.	Chloroform	10 parts.
	Cold cream, to . .	50	"		Oil of sweet almonds to .	50 "
M.				M.		

The use of baths in acute urticaria may tend to excite the skin and thus do harm in some cases, while soothing the skin in other cases, especially if carbonate of soda with boiled starch, bran or oatmeal be added to the water. The eruption is said to have disappeared immediately after plunging the feet and legs in hot mustard water.

The successful treatment of chronic urticaria must depend upon a knowledge of its etiology, and a diligent study of the varying causes of the disease will prove far more conducive to its cure than any amount of blind experimentation with remedies.

A very important class of remedies are those which tend to eliminate from the blood the imperfectly oxidized products of digestion and the impurities resulting from tissue metamorphosis. Of these the various alkaline diuretics and saline purgatives will be found beneficial through their tendency to promote the excretory functions of the kidneys and bowels, and thereby to lessen cutaneous congestion.

Since indigestion is such a common cause of urticaria, another important class of remedies are those which allay irritation of the gastro-intestinal tract. Of these rhubarb and bis-



DERMATITIS CALORICA.



DERMATITIS VENENATA.

ARTOTYPE E. BIERSTADT N. Y

muth have been justly praised. The administration of sulphurous acid in teaspoonful doses well diluted is not particularly palatable, but it will often produce a remarkable effect upon the eruption, probably by virtue of its action in checking the fermentative changes in the ingested food.

A third class of remedies are such as act mainly upon the nervous system and tend to lessen reflex irritability. This class comprises a number of drugs, most of which have a direct influence upon the cutaneous circulation, and many of which have been known to produce an urticarial eruption when administered in other diseases. Quinine, cinchonidia and cinchona bark *e. g.* are reported to have both caused and cured urticaria, and in many cases of intermittent fever it may be difficult to decide whether the drug or the malaria is the cause of the eruption. When the disease occurs in malarial subjects the drug may be expected to do good in checking the eruption if it has not already been given in large doses.

Bromide of potassium or sodium given in sufficiently large doses to produce symptoms of bromism will often have a speedy and marked effect upon troublesome and persistent cases or urticaria, especially such as owe their origin to neurasthenia rather than to indigestion.

Belladonna and atropia, salicylate of sodium, arsenic, strychina, aconite, balsam of copaiba, ergot and a host of other remedies have been highly praised by some while they have signally failed to manifest their alleged therapeutic power in other hands. The apparent value of many remedies has undoubtedly been based partly upon careless observation and partly upon the fact that the eruption sometimes disappears suddenly for a short time without any treatment whatever.

DERMATITIS.

Inflammation is the essential element of each disease of the class now under consideration, but the limitation of the inflammatory process to certain anatomical elements of the skin produces a variety of lesions and a peculiar clinical aspect in every case. When simple inflammation attacks the skin as the result of definite causes, it has been found convenient to apply the term dermatitis, with certain qualifying adjectives which serve to denote the nature of the cause. The usual symptoms are merely redness, heat, pain and swelling, but in some cases the lesions common to other inflammatory affections are met with. The grade of inflammation varies in accordance with the nature of the exciting agent, and the peculiar susceptibility of the skin. In many cases we may have nothing more than a simple, or non-exudative, erythema, while in other cases the inflammatory process leads to an eruption of vesicles, pustules or blebs, and occasionally the occurrence of gangrene.

DERMATITIS TRAUMATICA. This term includes the result of constant pressure and severe friction, bruises and wounds of various sorts, the stings of insects, and the excoriations produced by the free use of the nails to allay itching. The cause of the trouble may be generally determined by careful observation of the affected skin in connection with the history which the patient gives. The necessary treatment naturally involves an attempted removal of the cause, and will be suggested by the nature of the case.

DERMATITIS CALORICA.—This embraces various forms of cutaneous inflammation resulting from the action of an extreme degree of heat and cold. It includes sunburn, ordinary burns and scalds, frost bites and chiblains.

Sunburn is a well-known affection, characterized by intense redness and subsequent desquamation of parts which have been exposed for some time to the direct rays of a hot summer sun. It chiefly affects those who possess a fair complexion and who do not readily become tanned. The protective influence of the natural pigment of the skin is clearly shown in patients presenting patches of leucoderma upon the face, neck and backs of the hands. When such persons expose the pigmentless patches to the rays of a hot sun (*e. g.* in rowing a boat), the white portions of the skin become highly inflamed in a very short time while the surrounding skin remains unaffected, or simply becomes of a darker hue as the result of tanning. Sunburn is especially apt to occur when the rays of the sun are reflected from the surface of a body of water, and children at the seashore who are addicted to wading for a long time in shallow water with both arms and legs bare, often suffer severely for several succeeding days.

The treatment of sunburn ordinarily demands nothing more than simple inunction of the skin, but when the dermatitis is extensive and severe, it is often associated with severe pain and increased bodily temperature. In such a case, aconite may be given internally, and a lead lotion kept constantly applied to the inflamed skin.

Burns of the skin (Ambustio) vary in their appearance and results according to the temperature of the agent which has produced them, the duration of its action upon the skin, and the extent of surface which is involved. Three grades of burns have been described. The first produces merely redness, the second produces bullæ of varying size, and the third results in the formation of a slough or eschar. In a burn of the first degree, of which sunburn is an excellent illustration, the action of the heat produces a paralysis of the capillary vessels, and a consequent passive congestion. The redness which at first is of a bright tint, and associated with more or less swelling and pain, gradually becomes dull in hue, and is followed in the course of a week or two by desquamation. In a burn of the second degree, which may result from a contact with boiling water or heated metal, the hyperæmia is so intense in character that an exudation of serum occurs in the mucous layer of the epidermis, and forms what is commonly known as a "blister." This may occur at once, or only appear upon the erythematous surface after the lapse of several hours. These bullæ are usually rounded and tense, and appear of a yellowish hue. In some cases it is merely the horny layer of the epidermis which is elevated, and the prick of a pin will immediately give exit to the confined serum and cause a collapse of the bleb. In other cases, the greater portion of the epidermis is raised, and a prick or incision will only evacuate a portion of the serum and will leave the roof of the bleb still somewhat elevated by a pulpy exuding mass. There is frequently a slight amount of hemorrhage, especially if the loosened epidermis is violently ruptured or rubbed off, and a thin, dark crust forms. Beneath this a regeneration of the epidermis gradually takes place. In a burn of the third degree, the vitality of the skin

and sub-cutaneous tissue is destroyed, and sloughs of varying size are produced. These become loosened by a suppurative process in four or five days, are gradually cast off if not intentionally removed, and leave an ulceration which in time is followed by a contractile cicatrix. The scar which follows an extensive burn is always more or less puckered, and presents ridges which often radiate from the point where the destruction of tissue was most marked. When occurring upon the face, neck or neighborhood of joints, a considerable deformity is often produced by the gradual contraction of the cicatricial tissue.

The diagnosis of a burn is easily made, as the patient can easily furnish information as to the active cause. The lesions of the skin which result from the action of intense cold, are essentially the same as those resulting from a high degree of heat. A scald or burn resulting from the action of hot liquids differs from a burn produced by the contact of flame or hot metal, inasmuch as the hair upon the surface of the skin is immediately destroyed in the latter case, but not in the former.

The treatment of burns varies according to the nature of the case; and the selection of a local application may be made from an infinite number which have been highly recommended. For a burn of the first degree, or even one more severe, no better application can be made at the outset than a saturated solution of bicarbonate of soda. This being usually on hand in every household, can be applied immediately by means of moistened cloths, and in most cases it affords immediate relief from the pain. Later a dusting powder of corn starch, or precipitated oxide of zinc may be prescribed, and when the skin begins to peel an emollient ointment is advisable.

In burns resulting in the formation of bullæ, it is important to protect the part from external violence. The serum confined in tense blebs may be evacuated by a needle prick or incision of the elevated epidermis, but care should be taken that this is not torn or rubbed off, as a portion of it may become reunited to the skin beneath, and all of it serves as the best possible protection to the raw surface. The bullæ, after careful evacuation of their contents, may be dressed with the familiar combination of limewater and linseed oil, or sprinkled over with bismuth powder.

When sloughs have formed, the best plan of treatment is to keep the parts covered with or enveloped in hot compresses sprinkled with some disinfectant fluid.. Such dressings, renewed every two hours, will lessen the inflammation, hasten the separation of the sloughs and promote the healing of the resulting ulcers.

Frost-bite (Congelatio), or the cutaneous inflammation caused by exposure to a very low temperature, is characterized by symptoms quite similar to those already described under the head of burns. According to the intensity of the cold and duration of the exposure, we may have a varying degree of inflammation, varying from slight redness and swelling (Congelatio erythematosa), to the formation of large blebs (c. bullosa), and subsequent sloughing of the skin (C. gangrenosa). A frost-bitten portion of skin is at first white and stiff, but this condition quickly gives place to a dull red or livid hue when the patient enters a warm atmosphere.

A frost-bite of the first degree frequently affects the ears, nose, cheeks and hands, and although the redness and swelling usually disappears entirely in a few weeks, it is not uncommon for the parts to remain in a chronic erythematous condition until warm weather returns, and in some cases this passive hyperæmia persists for years.

The second degree of dermatitis from cold is most frequently noted upon the fingers, where large tense bullæ form, as seen in the illustration. (*See plate.*) This condition leads to superficial ulceration, and frequently to a temporary loss of the nails. If the fluids contained in the tissues have been completely frozen, a restoration of the circulation in the part is not to be hoped for, and one or more phalanges of the fingers or toes are usually lost by the subsequent sloughing which inevitably takes place.

The very first step to be taken in the treatment of a severe case of frost-bite, provided the patient is seen in time, is to prevent a too rapid return of the circulation in the affected part. To this end the patient should be kept in a cool or even cold room, and compresses dipped in cold water applied freely. When the hands and feet are the parts affected, an elevation of the limbs will tend to lessen the intense reaction, and thereby, to a certain extent, control the consequent dermatitis. The bullæ which form should be pricked or freely incised, to allow an escape of their serous contents, but the epidermis, as in the case of burns, should be retained as a natural covering for the inflamed tissue. Should gangrene set in, surgical measures should be promptly resorted to, with a view to the prevention of septic poisoning.

Chilblain (Pernio), is a chronic circumscribed inflammation of the skin, which occurs chiefly in the winter, and is prone to affect children and adults of low vitality and poor circulation. Its most common site is upon the toes, although other exposed parts may be affected. The skin is swollen, of a bluish red hue, and a disagreeable burning or itching is commonly present. In the treatment of this common and annoying affection, careful attention must be paid to the general health of the patient. The feet must be warmly clad, and exposure to cold and dampness avoided as far as possible. Of external applications a countless number have been recommended and employed with a varying degree of success. In most cases a stimulating application, such as spirit of turpentine or balsam of Peru, may be rubbed gently upon the affected skin at night with benefit, or flexible collodion or solution of gutta percha may be kept constantly applied.

When superficial ulceration has attacked the surface of the chilblain, the following ointment will be found of value:

℞ Iodoform, ... 2 parts.
Balsam of Peru, ... 3 "
Petrolatum, . to . . . 20 "
M.

DERMATITIS VENENATA. Under this head are classed certain inflammatory conditions of the skin which result from the peculiar irritating action of various external agents.

These include the escharotics, such as nitric acid, potassa fusa, and the various caustic applications; the rubefacients, such as mustard, castor oil and cantharides, and a number of poisonous plants. When applied to the skin, either intentionally or accidentally, these exert an inflammation characterized by simple redness or the formation of vesicles or pustules, and usually of such a peculiar appearance that the nature of the exciting cause can be divined.

One of the most interesting forms of dermatitis venenata is that produced by the contact of the skin with certain species of sumach, and especially the Rhus *toxicodendron*, or poison ivy, and the Rhus *venenata*, or dogwood. The eruption generally appears upon the hands at first, as these are most likely to come in contact with the plant, but usually in a few hours the forearms, face and frequently the genitals become similarly affected. The first symptom of the eruption which may not be noted until several hours after the exposure is a smarting or tingling sensation in the skin. Erythematous patches now develop, upon the surface of which numerous small and thickly crowded vesicles soon appear. The skin often becomes swollen and painful, and in addition to the local discomfort a slight febrile condition may be observed. The eruption runs a course similar to that of an acute eczema, and in from five to ten days the vesicles have usually disappeared and given place to a reddened and desquamating condition of the affected parts. A fresh outbreak of the eruption may now take place, even without renewed exposure, and in this way the eruption is sometimes prolonged for many weeks. Some patients who have suffered severely from ivy poisoning will complain of an eczematous eruption, which seems to occur every year upon the face and hands at about the time of the year when they were first affected.

There is a marked difference in the susceptibility of persons to this peculiar eruption. While some can handle the plant with impunity, and even rub the leaves or juice exuding from the broken stems upon their skin without exciting the slightest dermatitis, there are others who become affected in a marked degree by the poisonous exhalation which pervades the immediate vicinity of the fresh plant. I have a patient who assures me that he cannot drive through woods where the poison sumach abounds without subsequently suffering from the characteristic dermatitis, and that merely passing to the leeward of a field where farmers were burning brush has repeatedly been sufficient to evoke the eruption. The poisonous influence is frequently carried in gloves and other articles of clothing, and in knives which have been employed in cutting the leaves or branches, and thereby certain susceptible individuals may be unexpectedly affected. Physicians have been known to handle the rhus without injury to themselves but with detriment to susceptible patients whose skins they have shortly afterwards touched and poisoned.

Diagnosis. The eruption resulting from ivy poisoning, when seen at its height, can only with difficulty, if at all, be distinguished from an outbreak of acute eczema. But the characteristic localization of the eruption upon the hands, face and genital region will usually excite suspicion as to its nature, and the history which the patient often gives of having been in the woods just before the outbreak of the eruption will serve to verify the diagnosis.

Treatment. There are few affections of the skin for which a greater number and variety

of remedies have been recommended than for the dermatitis of rhus poisoning. A mere list of them would require several pages, and though many of them have been vaunted as infallible, it is probable that most of them have been tried in vain by other and less enthusiastic physicians. It is extremely doubtful whether there is any specific remedy which, given internally or applied locally, will cut short the attack, and yet much may be done to relieve the suffering of the patient. Enforced rest, light diet and cooling drinks will prove of benefit in every severe case, while small doses of gelseminum or grindelia robusta will certainly do no harm. Of local remedies the one which I have found to be as valuable as any of the number which I have tried, is lime water. If this is applied frequently by means of linen cloths during the height of the eruption, a soothing effect may be expected. The liquor sodæ chloratæ may also be used to advantage, either pure or diluted, with rain water. When the acute inflammation has subsided a soothing ointment will protect the tender skin and prove less troublesome in its application than the lotion.

ECZEMA.

Synonyms—Salt rheum. Moist tetter.

Eczema is the most common affection of the skin which the physician is called upon to treat. According to the various statistics of private and dispensary practice, it includes about one-third of all the cases. It occurs at all ages, in both sexes, and among all classes. There is scarcely a family, rich or poor, of which some member has not suffered at some period in his lifetime, from eczema in a slight or more severe form. It is furthermore one of the most annoying affections to which the skin is heir, and this fact, coupled with that of its frequency, renders it beyond doubt the most important of all skin diseases and one with which the physician should be most familiar. The disease is always amenable to proper treatment, and in no field of medical practice can the physician more readily secure reputation and reward than in the diagnosis and cure of Eczema.

The term eczema (from εκ and ζεω), meaning "to boil out," or "effervesce," implies a catarrhal condition of the skin. A moist surface, or at least a tendency of the affected skin to become moist through exudation of a gummy, albuminous serum, is the chief characteristic of the disease. It has been claimed that a moist surface is always present at some time in the course of the disease, but clinical experience shows that cases of erythematous and papular eczema may remain dry from beginning to end. Even these cases, however, evince a tendency to develop a moist surface upon slight external irritation, and moist patches are not infrequently found upon an extensive eruption which elsewhere is perfectly dry. Frequently patients will state that their eczema, now in its decline, has always been dry, and the thickened patch of skin may appear to be due to increased cellular growth or some cause other than infiltration of the skin with a serous fluid. If the scaling epidermis be rubbed briskly with soap and a piece of rough cloth it will be readily removed, and the catarrhal, and hence the eczematous nature of the patch, will be revealed by the minute pearly



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ECZEMA ERYTHEMATOSUM

ARTOTYPE, E. BIERSTADT, N. Y.

beads of serum, which ooze out on the surface of the partially denuded corium. It is this tendency to exudation upon the surface of the skin which distinguishes a patch of eczema from simple inflammation or dermatitis.

The exudation in eczema varies in amount, being so slight in some cases as not to appear upon the surface, while in others it is poured out so abundantly that the whole epidermis is washed away and a smooth red patch is exposed. It varies also in character. In some cases the exudation is plastic, and being retained in the cutaneous tissue produces papulation on the surface, and infiltration and hardening of the subcutaneous cellular tissue, while in other cases it readily permeates the cells of the *rete*, and elevates the horny layer in the form of vesicles. Upon the surface of the skin the exudation feels sticky, and cloths or bandages soaked by it stiffen upon drying, and appear stained. In strumous and ill-conditioned subjects, the exudation assumes a purulent character. This variation in the character of the exudation results in a variety of lesions, no one of which has any claim to be regarded as the special lesion of eczema. The disease is not merely a vesicular affection, as it was classed by the earlier dermatologists, but is frequently papular and pustular as well, and in many instances there is no vesiculation from beginning to end. When the surface exudation is profuse, the serum dries and forms crusts. The crust of typical eczema is thin and dark, cracking, and allowing the exudation to ooze from the cracks. Often it is composed partly of dried blood, the result of scratching. When the exudation is purulent, the crusts are lighter in color and thicker, increasing in bulk by augmentation from beneath. The exudation is sometimes of a thick, honey-like character, producing a bright yellow crust.

The thickening of the skin in eczema is most marked in chronic cases. It is partly due to cellular infiltration, and partly to the exudation of plastic serum into the subjacent areolar tissue. In acute cases and in parts of the body liable to passive congestion, *e. g.* the legs, a temporary œdema often increases the thickness of the integument.

The itching of a patch of eczema is a feature which is rarely absent, but on the contrary, usually present in a marked degree. In adults it is apt to be most troublesome in the erythematous and papular forms of the disease. In children it is usually severe, although, in the pustular form which occurs so often in those of a strumous diathesis, the symptom may be much less marked.

The pathological process which takes place in the affected skin consists mainly in congestion and cell-proliferation. In some cases the congestion is the main feature, and the affection is only to be distinguished from erythema by the characteristic pruritus and desquamation. In most cases, however, there are marked cellular changes, as has been shown by microscopical examination. The disease in its mildest form may begin as a simple hyperæmia. The skin becomes sightly thickened, itches more or less, and finally desquamates. Usually, however, the initial hyperæmia is followed by the development of papules, vesicles or pustules. Pruritus and exudation become prominent features, and eventually the affected skin desquamates, as in the former instance. The disease, then, always begins in hyperæmia and ends in desquamation. It is characterized by a tendency to moisture of the surface,

which may result in crusting, by infiltration of the deeper tissues which produces thickening, by the development usually of papules, vesicles or pustules, and by slight or severe itching.

Following Willan, the illustrious pioneer of English Dermatology, some writers have divided eczema into a mild variety (*E. simplex*), an inflammatory variety (*E. rubrum*), and a purulent variery (*E. impetiginodes*). This division is rather broad and indefinite, and as many cases do not fall naturally into one of the three classes, it is of little practical value. As a guide in the study of the disease, an aid in the description of cases, and a hint as to the requisite mode of treatment, it is a better plan to divide eczema into stages through which the majority of cases pass in their progress toward recovery, and to classify all cases in accordance with certain well-marked clinical forms or phases assumed by the eruption, and to which a special nomenclature is applicable.

The stages of eczema are three. The initial stage is characterized mainly by hyperæmia, with slight interstitial exudation, and in most cases by an eruption of papules, vesicles, or pustules. This lasts but a few days or weeks at the most before passing into the second stage, which is characterized by exudation and crusting. The exudation may be serous or sero-purulent in character, and the inflammatory symptoms are usually well-marked. The surface exudation destroys the integrity of the epidermis and dries into light-colored crusts when not mingled with blood, which often flows freely from numerous excoriations. The second stage of eczema is of indefinite duration; but sooner or later the exudation subsides, the crusts fall, leaving a thin, newly-formed epidermis, and we have then the third or terminal stage, characterized by desquamation and a certain amount of induration of the affected part. In some instances the initial stage passes directly into the terminal stage, without the occurrence of exudation upon the surface or the development of any lesion besides the erythematous patch, and not infrequently the third stage relapses into the second, the scaling surface again becoming moist. Very often a case of eczema will exhibit the three stages on different portions of the skin at the same time. At the spreading margin of an exuding patch (second stage) we see hyperæmia and vesiculation (first stage), while a neighboring patch may have become dry and scaly (third stage). The terms "acute" and "chronic," as applied to eczema, are conveniently used in describing cases, and are always suggestive of the appropriate plan of treatment; but it must be borne in mind that these terms, as commonly employed, do not refer so much to the length of time which the eruption has existed as to the grade of inflammation which it presents. An eczema of thirty years' standing might, therefore, during an exacerbation, be regarded as an acute eczema, and treated as such until the inflammatory symptoms have subsided.

The clinical forms of eczema are numberless, and innumerable expressive terms have been coined and applied to them. It is simply a question of convenience whether we shall employ five terms or fifty for purposes of description. Certain it is, however, that there are six striking phases assumed by eczema, and in accord with Wilson, the most admirable writer on this disease, the following clinical forms will be described:

ECZEMA.

1. Eczema erythematosum (Pityriasis).
2. Eczema papulosum (Lichen simplex).
3. Eczema vesiculosum.
4. Eczema ichorosum (E. madidans. E. rubrum).
5. Eczema pustulosum (E. impetiginosum).
6. Eczema squamosum.

The first two and last of these forms are always dry (*E. siccum*), while the remaining three are more or less moist (*E. humidum*), although the moist surface is sometimes concealed by a crust. These forms of eczema may be accompanied by exceptional peculiarities, such as a circumscribed border, the existence of œdema, and the development of tubercles, fissures or a warty surface. The term Eczema *marginatum* is applied to an erythematous or papular patch which does not shade off at its borders, as is commonly the case in eczema. The condition is frequently seen about the genito-crural folds, and is likely to be confounded with trichophytosis of this region, of which it is sometimes a sequel. The term Eczema *rimosum* (*E. fissum*) is used when a squamous or ichorous eczema of the hand or of the flexure of joints is accompanied by the development of numerous fissures (see plate of *E. squamosum*). Eczema *verrucosum* indicates a warty condition, most frequently seen near the ankle, and generally in connection with ulceration. These accidental features are of little importance, and cases of eczema exhibiting them will be found to fall naturally into one of the six divisions.

The older writers on Dermatology were specially disposed to indulge in the use of a great variety of adjectives to indicate the peculiar features of eczema, and Bulkley has made a collection of the terms thus employed, and has found that not less than one hundred and twenty-five Latin names have been given to the phases of this one eruption.

Erythematous eczema, as the name implies, is characterized mainly by hyperæmia. There are no vesicles, pustules, or well marked papules, no moisture—nothing but a tolerably smooth, reddened surface, with a moderate amount of fine desquamation. In its incipient form it is merely a persistent erythema, with slight infiltration of the skin and consequent pruritus. By scratching, or other external irritation, the skin may become considerably thickened and covered with fine branny scales. This form (classed with *E. squamosum* by Hebra, and described as pityriasis by older writers) is frequently met with on the face, and usually predominates when the disease extends over the greater portion of the body. In the plate of *E. universale* it is seen, together with patches of the ichorous and the squamous form.

When hyperæmia, which is the distinguishing feature of both erythematous and papular eczema, is not merely confined to the superficial network of blood vessels, as in the erythematous form, but involves also the follicular plexuses, we have discrete congestive papules developed upon a reddened patch of skin. This papular eczema may be transitory when produced by external agencies (a poultice of water-dressing, *e. g.*), but it is often chronic and obstinate. When the congested follicles are not seated upon a hyperæmic and infiltrated patch, but are scattered in groups upon the normal skin, the term lichen simplex has been

used to denote the condition. While it is convenient for purposes of description to use the old terms lichen and impetigo, it must always be borne in mind that they are not distinct affections, but merely modifications of the papular and pustular forms of eczema.

Vesicular eczema was formerly regarded as the type of the disease. Vesicles, however, are rarely present in cases of eczema when seen by the physician, and hence are of little use in diagnosis. In many cases there has been neither vesiculation nor even a moist surface throughout the course of the disease. The vesicular form of eczema is quite uncommon. It consists of numerous small acuminate vesicles, crowded together upon a highly-congested base. It may run an acute course, and terminate in a week or ten days (and this is usually the case when it is due to the action of some severe local irritant), or the exudation may continue after a rupture of the vesicles, and the disease then assumes the ichorous form. Vesicular eczema attacking the face is often mistaken for erysipelas, especially when its outbreak is accompanied by slight fever. The smooth, tense skin, with an abrupt margin of the patch, is not seen, however, in eczema, and the speedy development of fine vesicles, or an exuding surface, dispels all doubt.

In the ichorous, or moist form of eczema, we have the condition of most frequent occurrence. The affected part is swollen and tender, and the surface either presents a reddened, raw appearance (*E. rubrum*), or is covered by a thin, dark crust, through which and beneath which the characteristic gummy exudation appears. Vesiculation may or may not have preceded this condition. The exudation may have permeated the epidermic cells and washed them away *en masse*. Indeed, a moist surface may be present in some cases without even destruction of the epidermis. When folds of skin lie in contact, as they do about the neck and joints of fat babies, and beneath the breasts and in the inguinal region of obese females the epidermis becomes macerated, and frequently assumes the character of epithelium. For a short time the skin may appear as though converted into a mucous membrane, and discharge a viscid serum (*E. mucosum*). Eczema ichorosum, in which the disease is at its height, cannot be well confounded with any other affection of the skin.

The pustular form is in some cases not readily distinguished from the ichorous form. The exuding serum, instead of being clear and watery, may be thicker, honey-like consistence, and dry into yellowish crusts. The contents of the vesicles may assume a sero-purulent character, or pustules may be scattered over the surface along with the vesicle, while in either case yellowish or slightly brownish crusts are formed, which increase in thickness from additions to the under surface. Pustular eczema is common in strumous and poorly-nourished subjects. It is very apt to appear in connection with scabies and with phtheiriasis both of the body and of the head. Isolated pustules are frequently developed when external irritation coincides with impaired energy, *e. g.*, after a season of intensely hot weather, but it is an open question as to whether these are justly regarded as being eczematous in nature. Though eczema commonly leaves no scars, this pustular form, the "milk-crust" of infancy, sometimes pits the cheeks, and, even in later years, the child shows marks which might be mistaken for the effect of variola.



ECZEMA RUBRUM ET SQUAMOSUM

The squamous form is the terminal stage of one of the other forms. It is but an exaggeration of the erythematous form—the acute hyperæmia and branny desquamation giving place to thickening and induration of the skin and subjacent tissue, with exfoliation of the epidermis. It sometimes occurs in patches upon the extensor surface of the extremities, when it is with difficulty distinguished from psoriasis. The gradual shading off of the patches at the margins, contrasted with the circumscribed border of psoriatic scales, and the existence of moisture beyond that condition which exists in psoriasis when the scale is removed and the corium exposed, are features which will usually determine the diagnosis. Squamous eczema, when universal, resembles Dermatitis exfoliativa; but in this rare affection the flakes of epidermis are much more abundant, there is no thickening of the skin, no moist patches, no severe itching, and frequently there is a high grade of fever and great prostration.

According to the German school, eczema is a local disease, and usually independent of any constitutional vice or humor. External treatment is, therefore, of the greatest curative value. The idea of "driving in" the eruption, or of its possible metastasis to some internal organ is rejected, and the relapse which so often occurs in eczematous patients is referred to perverted cell-growth of the affected part rather than to any disposition to the affection existing throughout the economy.

The French school has always been the champion of the constitutional nature of eczema. The dartrous diathesis which, emigrating to America, appears as the rheumic diathesis, is a term employed to indicate that general condition of which the eruption in eczema (and psoriasis as well) is believed to be a mere outward expression. The local treatment, according to the supporters of this view, is of minor importance, and a radical cure is only to be obtained by remedies aimed at the constitutional defect.

The English writers on dermatology, while not generally accepting this view of the diathetic nature of eczema, lay great stress upon its association with and dependence upon gout, rheumatism, dyspepsia, etc., in a large proportion of cases, and are more disposed to favor a judicious combination of internal and external remedies. In America, these opposing views meet on a common ground, and time will undoubtedly declare the "survival of the fittest."

The predisposing causes of eczema are not thoroughly understood. There are plenty to be found outside of the profession who satisfy themselves by saying that it arises from "heat in the blood," or "bad humor," or "scurvy," and there are many able writers in the profession who delude themselves into the belief that everything is clear when the disease is ascribed to "assimilative debility," "perverted innervation," or to some favorite "diathesis."

Piffard, an able champion of the "rheumic" diathesis, claims that eczema, psoriasis and pityriasis exhibit certain general characteristics which indicate a mutual relationship, and mentions the following features which they possess in common:

They are not contagious.

They are frequently general; not, however, by simultaneous invasion of the surface, but by spreading from different foci.

They are frequently symmetrical.

They are usually chronic.

Their natural duration is indefinite.

They are obstinate and do not readily yield to treatment.

They are frequently observed in different members of the same family.

Two or more forms may be present at the same time, or may appear successively.

They do not always preserve their individuality, but sometimes merge one into the other.

Relapses are frequent.

They sometimes alternate with affections of other organs, especially of the pulmonary and gastric mucous membranes and of the joints.

They itch.

The lesions are always superficial.

They never leave cicatrices.

They are more or less amenable to certain definite methods of treatment, which have little if any effect upon other cutaneous affections.

We know that eczema is frequently associated with a rheumatic tendency, and with some of the many phases of dyspepsia, and that it is aggravated by poor food, intemperate habits, care, and overwork. Its association with dentition, gestation, worms, diabetes, etc., has been noticed so often as to suggest a relationship, and the fact should not be lost sight of when called upon to treat the disease. If not hereditary in many instances, it is certainly more prone to occur among those who inherit the delicate and irritable skin, and the rheumatic and gouty tendencies of their eczematous progenitors. The exciting causes are mostly local. Any continued irritant of mechanical or chemical nature will produce an eczema upon almost any skin, and all the more readily when some of the predisposing causes exist. The use of over-stimulating ointments in other skin affections—as sulphur in scabies, mercurial ointment in phtheiriasis pubis—often evokes an eczema. Grocers, bakers, bricklayers, and others engaged in peculiar occupations, often acquire eczema upon the hands and other parts exposed to the irritating action of sugar, lime, brick-dust, etc. Persistent moisture favors the development of the disease, and hence infants and corpulent adults are often affected where the folds of the skin come in contact. Washerwomen are very prone to a severe eczema of the hands, which is often incurable so long as the hands are frequently in water.

Diagnosis. Eczema is the most protean of cutaneous affections. Occurring, as it does, at any age and upon any portion of the body, and presenting the greatest variety of lesions, it is capable of assuming a similitude to almost any affection of the skin. In ordinary cases it is readily recognized, but when it does not present a typical form it is frequently mistaken for some other disease. The advice which has been jokingly given to call every doubtful eruption a case of eczema is not at all bad, for in nearly every doubtful case the diagnosis of eczema must be considered, and where the doubt can not be expelled the physician will do

better to consider it as eczema and endeavor to cure it by attention to the patient's general health, than to regard it as a possible manifestation of syphilis, and acting upon this suspicion to subject the patient to an unnecessary course of specific medication.

In the diagnosis of eczema the characteristic symptoms of the eruption must be borne in mind, and if the case in question presents redness and thickening of the skin, scaling or crusting, a tendency to moisture, and a severe pruritus, the diagnosis is evident. But some of these symptoms may be absent, and it will be often found necessary to consider the characteristics of certain other affections which may be suggested by the clinical appearances of the case and then arrive at a diagnosis of eczema by a process of exclusion. The thickening of the skin in eczema is sometimes too slight to serve as a basis of diagnosis and as has been already stated, the moist surface is not an essential feature of the disease. The itching of the skin, however, is always present and most serviceable in suggesting the eczematous nature of the disease.

In the diagnosis of skin diseases in general it is often a good plan to regard them all as belonging to two classes, viz.: those which itch and those which do not itch. If the eruption is not at all itchy (and to decide this point it is far better to look for evidences of scratching upon the skin than to inquire of the patient), it is evident that it is not eczema, urticaria, scabies, phtheiriasis or any other affection belonging to the first of the two classes. On the other hand, if the lesions are excoriated and the skin decorated by numerous scratch marks, we know that the eruption can not be of a syphilitic origin, or one of those of the second class, in which there is little or no pruritus. Unfortunately for the perfect working of this plan of diagnosis there are some affections which, like erythema multiforme, burn or itch in a slight degree—or like psoriasis, may or may not itch—but nevertheless it often enables one to narrow the possibilities of diagnosis to a considerable extent.

The erythematous form of eczema may be mistaken for erythema, erysipelas, rosacea and pityriasis. Simple erythema differs from a mild case of erythematous eczema in a very slight degree. There is no thickening of the skin, the surface not at all scaly save in exceptional instances where an extensive desquamation follows the hyperæmia and the sensation accompanying the eruption is one of burning rather than itching. Erythema multiforme is usually distinguished by its characteristic localization on the backs of the hands, or by its marginate configuration when occurring upon the trunk. When eczema occurs in an acute form upon the face of an adult, the sudden redness and swelling of the skin is very apt to lead to a diagnosis of erysipelas, but the absence of fever, the occurrence of vesicles or surface exudation in place of bullæ, and the course of eruption, will soon reveal the mistake.

Rosacea occurring in old men with weather-beaten faces, often presents a counterfeit appearance of erythematous eczema of the forehead, nose and cheeks. In the former affection the congestion is of a chronic passive character, and the skin feels cool to the touch, while in the latter, the congestion is active, and accompanied by an elevated temperature and severe itching. Pityriasis might be considered as the mildest form of erythematous or squamous

eczema. In its clinical appearance it differs only in being more superficial, and not presenting the bright red color and annoying pruritus of eczema.

The papular form of eczema may be confounded with scabies, phtheiriasis, urticaria, lichen planus and syphilis. In scabies, indeed, the eruption is nothing more than an artificial papular eczema, but the extent of the eruption, its peculiar localization, and the history of contagion, even without the discovery of the characteristic burrows of the itch mite, will serve to indicate the parasitic origin of the disease. In both scabies and phtheiriasis the eruption is largely due to the action of the finger nails upon the skin, and there never co-exist patches of moist and thickened skin, such as inevitably accompany an extensive eruption of papular eczema.

It should be borne in mind, however, that a secondary eczema is not infrequently produced in these parasitic cases by the irritation of the skin, and hence a double diagnosis is often necessary. Urticaria could not be mistaken for anything else if it were always seen at its height, but inasmuch as the wheals have often disappeared when the patient seeks relief, and nothing is left upon the skin but a number of excoriations and papules which have resulted from scratching, the diagnosis of papular eczema can only be excluded after a consideration of the history of the case. Lichen planus differs from papular eczema in the peculiar character of the lesions, which are low, flat, and often angular in outline, and with a shining surface and a central depression. These lesions are very apt to form patches, but a tendency to moisture or crusting is never observed. Lichen ruber is too rare and too severe a disease to be often mistaken for eczema. The miliary papular syphilide, on the other hand, has frequently passed unrecognized, and been treated for eczema until other undeniable manifestations of syphilis have made the error apparent. The eruption in the two affections may be quite similar in appearance, although the papules of eczema are always of a brighter red hue, and usually more or less excoriated. The concomitant symptoms of the syphilitic eruption will usually decide the diagnosis.

The vesicular form of eczema, when at its height, resembles the dermatitis which results from ivy poisoning and the inunction of strong mercurial and other vesicating ointments. It differs from these in its tendency to occasion a decided infiltration of the skin and a moist "weeping" surface. This condition, which is the most typical phase of eczema, could not possibly be confounded with any other affection, unless it be intertrigo, in which the moisture of the opposing surfaces of skin is chiefly sweat, and devoid of the sticky character and tendency to stiffen the linen, which is the essential feature of the eczematous discharge.

The pustular form of eczema may be mistaken for sycosis, porrigo or favus. Between eczema of the beard and sycosis a difference exists which is not admitted by all writers. The inflammatory process in the latter affection is deep-seated and the pus which forms in and around the base of the follicles, loosens the hair and appears at the opening of the follicles in the form of minute pustules, through each of which a hair passes. In eczema of the beard there is a more uniform redness and swelling of the skin and the hairs are not loosened. Porrigo (or impetigo contagiosa) differs from pustular eczema in the size of the lesions and the





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ECZEMA SQUAMOSUM.

ARTOTYPE E. BIERSTADT N. Y.

character of the crusts formed; while the latter are usually numerous, small and thickly crowded and form a large, irregular dirty yellow or even brownish crust, the lesions of the former affection are larger, circular and discrete, and form a lightly adherent straw-colored crust beneath which there is a pinkish patch of skin with no moisture. When pustular eczema has formed a thick yellowish crust upon the scalp it may bear a resemblance to the mortar-like crust of favus, but the hair is wholly unaffected in the former case and there are no bright yellow cup-shaped crusts at the mouths of the hair follicles as are commonly seen in cases of favus.

The squamous form of eczema is most apt to be confounded with psoriasis or dermatitis exfoliativa when severe and general, and with the squamous syphilide when it is limited to the palm. Eczema and psoriasis may be undistinguishable as far as the lesion of the skin is concerned, but the shape of the patches, the general configuration of the eruption and the history of the case serve as a basis for diagnosis. While in eczema the patches are rarely circular, and usually shade off into healthy skin at the margin, the scaly spots of psoriasis or larger confluent patches are either circular or if confluent retain the sharply-defined border of the original discs. While eczema is often unsymmetrical and especially liable to affect the flexures of the joints, the genital region and other parts where the skin is thin, psoriasis is usually remarkably symmetrical, and prone to affect chiefly the extensor aspect of the extremities. The squamous form of eczema is subject to occasional exacerbations, at which time a moist surface is very apt to develop. Psoriasis presents the peculiarity of increasing in intensity at certain seasons of the year, and nearly or quite disappearing at regular periods, usually through the summer months.

A general eczema bears a strong resemblance to dermatitis exfoliativa, but it does not, as a rule, involve every inch of skin, as is the case with the latter affection. Moreover, it produces a marked thickening of the skin which is notably absent in dermatitis exfoliativa. In general eczema there are usually moist patches which are characteristic, but even in exfoliative dermatitis these may be developed as a secondary eruption about the flexures of the joints.

Eczema, when limited to the palms and soles, is extremely difficult in many cases to distinguish from a squamous syphilide. If the eruption is symmetrical and irregular in outline and without a well-defined border, the probabilities are that it is eczema. On the other hand if but one palm or sole is affected and if the eruption assumes a circular or semi-circular form, is serpiginous in character, with an abrupt, elevated margin and a comparatively smooth centre, it is usually safe to consider it as of syphilitic origin. The itching and cracking which are supposed to be characteristic of eczema are symptoms which may likewise be present in the chronic squamous syphilide of the palm.

TREATMENT. Among the laity there exist many absurd and erroneous notions regarding eczema, and chief of these is the very common impression that certain chronic cases are incurable. It is true that many cases tax the skill and patience of even the physician who has had a large experience in the treatment of skin diseases, but it may be positively stated

that every case of eczema is amenable to proper treatment. The great majority of cases, including those which involve a large extent of cutaneous surface, and which are apparently of the worst type, will yield at once if judicious methods are instituted. These measures are necessarily various and must be selected in accordance with the varying etiology of different cases. While constitutional invigorating treatment is of the greatest importance in one case, the next will require nothing beyond a careful selection of local applications. Most cases, however, require a combination of both constitutional and local treatment to effect a radical and speedy cure.

The constitutional treatment of eczema may be summed up in the advice to improve the patient's health in every possible way. There is no routine plan to pursue, or at least there should be none. Give tonics when needed, regulate the diet, improve the digestion, when impaired, relieve existing constipation, if possible, and rectify all errors of hygiene.

Of tonics, a plentiful supply of fresh air, and where it is feasible, a change of air and scene, is one of the most reliable in the treatment of eczema, as of numerous other ills. Iron, quinine, cod-liver oil, and other remedies may be called for by the condition of the patient, but these have little or no direct effect upon the diseased skin. The diet of the patient is an important matter to consider, although eczema is less dependent upon gastric and intestinal derangement than some of the other inflammatory affections, *e. g.*, acne and urticaria. In many cases the diet must be restricted in amount, or an increased amount of exercise strongly insisted upon in order to ensure the perfect digestion of the food which is taken into the stomach. The amount of nitrogenous food consumed by many patients suffering from eczema is greatly in excess of their needs and should be lessened. In hot weather I have generally found it advisable to prohibit entirely the use of meat. When, as is frequently the case, there exists an aversion to fat meat, often the result of whim or education rather than natural taste, the patient should be encouraged to take plenty of cream, butter, or fat in some form. Cod-liver oil, especially in strumous children, is frequently of the greatest benefit.

There is no specific treatment in eczema, no single remedy of pre-eminent value. The administration of arsenic, as a first and last resort in every case, is a prevalent custom which I must emphatically condemn. Arsenic is a valuable remedy in pemphigus and psoriasis, and indeed in some cases of eczema; but of so little value is it in the latter disease, as compared with other remedies, that I very rarely find any occasion to prescribe it.

The value of purgation in eczema is debated. While not accepting the old idea of a *materies morbi* being carried out of the system in this way, I must say that clinical experience demonstrates that in many cases of both acute and chronic eczema, particularly of the erythematous variety, the administration of purgatives for a few days will be followed by an immediate and permanent improvement, and this, too, in cases which are not being treated locally, or in which local applications have had comparatively little effect. Diuretics, by stimulating the kidneys, and thus relieving the skin of some of its functional duties, certainly produce a most decided improvement in many cases of eczema, and are almost indispensable when treating patients with gouty or rheumatic tendencies. Our natural mineral waters have

a very beneficial effect in most cases of chronic and obstinate eczema, and the Ballston waters, which contain a large amount of lithia, I can especially recommend. Of the alkaline salts, either the acetate or the citrate of potassium, in one or two gram doses (gr. xv.—xxx.), will be found of great service. This should always be taken well diluted, and either a half hour before or an hour after each meal.

Gelseminum, cypripedium and the bromides may often be given with good effect, especially at night, to lessen the intense pruritus from which eczematous patients suffer.

The success of local treatment in eczema depends upon its adaptation to the case in hand. Innumerable are the remedies which have been recommended, but without a knowledge of the principles which govern its use, no remedy can be of much service. I will venture to assert, that so far as local applications are concerned, the great majority of cases of eczema can be successfully treated with two simple ones, which are always on hand, or very easily obtained, viz., sweet oil and soft soap. Of course, I do not advise the reader to use these, since there are various emollient applications superior to the former, and stimulating remedies which may advantageously supplant the latter; but I hold that it is far better to know how and when to use even the two remedies mentioned, which typify two opposite modes of treatment, than to have a well-stocked drug store at command, and to use its contents without definite purpose. What will a bland oil or an emollient ointment accomplish in the treatment of eczema? It will soften and remove any crusts which may be present, it will soothe the inflamed parts, and alleviate the itching, and it will protect the denuded corium from the desiccating influence of the air and the irritating action of water, and thus allow the growth of a new and healthy epidermis. In the acute eczema of infancy, and in the acute form of the disease, at whatever age it may be met with, it matters little what oil or ointment or lotion be employed so long as it is the most soothing application that can be made. What will soap accomplish in the treatment of eczema? It will free the surface of the skin from a mass of dead epidermis, it will give exit to confined serum, it will stimulate the circulation of blood in the diseased skin, and thereby promote the absorption of the infiltrated products of inflammation. In chronic cases, where there is thickening and induration of the skin, with persistent desquamation and annoying pruritus, cases in which emollient applications are utterly inefficacious, soap frictions will change the character of the eczema from a chronic to a sub-acute form, a condition tending naturally to recovery. In fact, as in quinine in the treatment of malaria, so is sapo viridis, or ordinary soft soap, in the treatment of chronic eczema.

The widespread popularity of green soap is due solely to its therapeutic efficacy, and exists despite numerous objections to it which might be raised. Though purporting to be composed of potash and olive-oil, it is commonly made, as many are aware, of hemp-seed, rape-seed, whale and other animal oils not always free from rancidity. Hence the offensive odor of the green soap which is commonly obtained in the market. The saponification of the soap is not always perfect, and it usually presents a streaky, variegated appearance. Its

green color is artificial and due to the presence of indigo and other dye-stuffs. It tends to harden on exposure to the air, and finally its alkalinity varies to such a degree as to render its effects more or less uncertain.

Some years ago a friend suggested to me the use of a substitute in the shape of a soft olive soap used extensively in the manufacture of silk and other delicate fabrics. This I have tried and found to be a similar, though far more elegant article than the ordinary sapo viridis. It is made from cold-pressed olive-oil, and owes its green color entirely to the chlorophyl of the olive. As manufactured by Bagoe & Co., of New York, it is of unvarying alkalinity, wholly free from unpleasant odor, homogeneous and, unlike the common green soap, it gives a perfectly clear solution with strong or dilute alcohol. I have found it advantageous to add to the soap a small percentage of glycerine, which, while counterbalancing the natural loss of free water, renders it a most agreeable preparation.

The most common mistake made in the local treatment of eczema is in the application of over-stimulating ointments and irritating lotions to parts which demand the most soothing measures, and in the application on the other hand, of the oxide of zinc, or some other slightly astringent ointment, to cases in which nothing short of soap frictions or some equally harsh remedy will prove of the slightest benefit. At the risk of repetition, let me say again, that the grade of inflammation determines the selection of a soothing or a stimulating plan of treatment. If the affected part is swollen and hot, pouring forth a profuse discharge, and accompanied by an intense, burning pruritus, the local applications cannot be of too soothing a nature. If the skin is dry, thickened, indurated and scaly, the local treatment can hardly be too severe. Where the disease is extensive, as in Eczema universale, it is generally necessary to vary the character of the treatment upon different portions of the body.

Such, briefly stated, are the principles which govern the local treatment of eczema. As, in general treatment, the habit and idiosyncracies of the patient must be borne in mind, so in local treatment must the character of the lesions be studied and routine practice avoided. The reader must cast aside the vulgar notion that a wonderful therapeutic power dwells in the remedy which is used, and learn that success in treatment is wholly due to the skillful adaptation of remedies to the requirements of each case.

In acute eczema the pain and swelling which are sometimes present at the very outset of the attack, may be relieved by the application of a cooling and sedative lotion, such as the common mixture of lead water and laudanum. Lime water, "black wash," and the diluted fluid extract of grindelia robusta, or hamamelis, have been highly recommended for this condition of the skin. With the occurrence of exudation the application of a soothing and protective ointment is preferable. The diachylon ointment recommended by Hebra, and extensively used in Germany, is valuable if properly made, but the zinc oxide ointment of Wilson is more commonly used in England and this country, and on the whole is to be preferred. A better application than either, according to my experience, is one recommended by Lassar, and composed as follows:



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ECZEMA INTERTRIGO.

ARTOTYPE E. BIERSTADT N.Y.

℞ Salicylic acid, ... 2 parts.
Oxide of zinc, ... 25 "
Starch, ... 25 "
Petrolatum to . . . . . 100 "
M.

This is often the only local application which is needed in a case of eczema when seen at an early stage, but when the acute inflammation has subsided, and especially when the affection has reached its third or scaling stage, the return to a normal condition of the skin will be hastened by the addition of five per cent. of oil of cade to the formula given above.

In chronic cases of eczema equal parts of tar and alcohol may be well rubbed into the affected skin by means of a sponge or stiff shaving brush, and if this does not prove too stimulating for the condition of the skin which is present, it will certainly tend to allay the itching, and lessen the thickening which has taken place as a result of the prolonged inflammation. Chrysarobin is a most valuable remedy in many cases of chronic eczema, and may be applied in the form of a pigment or varnish, prepared by suspending the powder in collodium or the solution of gutta percha, or in the form of the following ointment :

℞ Chrysarobin, ... 5 parts.
Salicylic acid, ... 5 "
Petrolatum to . . . . . 50 "
M.

It should be borne in mind that this ointment will stain and ruin the bed linen and underclothing of the patient while it is curing the eczema, and the patient should therefore be made acquainted with this fact. Recently a novel and efficacious method of treating eczema by means of medicated glycerine-jelly has been highly recommended by Pick, Unna, Morrow and others, and bids fair to become generally popular. This jelly is prepared by boiling together one part of gelatine and three or four of glycerine until they form a translucent mass. To this any medicament, such as oxide of zinc or chrysarobin can be added. When ready to be used a sufficient quantity of the soft tenaceous mass can be melted in a cup, and the warm liquid jelly painted over the affected skin by means of a stiff brush. It dries quickly and forms a thin, flexible, artificial cuticle.

The question as to whether the rapid cure of eczema may prove prejudicial to the patient has been freely discussed. The experience of nearly all dermatologists answers this with an emphatic negative. No peccant matter is ever eliminated from the system in the form of an eczematous discharge, and under no cirumstances can the disease be regarded as salutary. It is true that the eruption, in rare instances, seems to alternate with affections of the respiratory apparatus ; but this merely shows that inflammation of the skin is not apt to co-exist with inflammation of an internal organ. If a child under treatment for eczema is exposed to cold or injured by a fall, and contracts pneumonia or meningitis, the eruption naturally subsides, in consequence of the determination of blood to the lungs or brain. The rapid cure of

eczema, instead of being the cause, is rather the result of the internal phlegmasia. In this way an eruption may be said to be drawn in, but it is impossible for local treatment to drive it in. I have no doubt but that in some cases of infantile eczema harm has resulted from the application of strong mercurial ointments to a large extent of skin; but it has been the mercury and not the disease which has been driven in. Death or severe illness, from whatever cause, is preceded by the subsidence of any eczematous discharge which has pre-existed, and illogical friends of the patient are not only liable, but often disposed, to mistake the cause for the effect.

ECZEMA INFANTILE. The occurrence of eczema in infants and children under five years of age is so common, its clinical appearance so marked and its treatment so peculiar, that for practical purposes eczema of infants might be considered as a distinct affection from eczema of adult life. It occurs among the rich as well as among the poor, although less likely to assume an aggravated form when the child is properly cared for. It often commences immediately after birth, or when the infant is but a few week old, persisting, if not properly treated, for several years. It runs a somewhat irregular course, appearing better and worse from week to week, the occasional exacerbations of the disease being usually unaccountable. The disease is a most annoying one in all cases, not only to the little sufferer, but to the mother or nurse who has charge of the case, whose sleep is so frequently broken by the child's distress.

Eczema of infants is most common upon the scalp and face, and this locality is generally affected when eczema is present. In addition there may be patches of the eruption upon the trunk and extremities, involving a considerable portion of the integument. Upon the scalp the eruption usually affects the anterior portion, except when pediculi are the cause of the trouble, in which case the irritation and scratching almost invariably produces an eruption upon the occiput. The seborrhœa, which so frequently forms a dirty, greasy and persistent coating upon the crown of the infant's head, is very frequently the starting point of an eczema which may occupy the same location or spread down upon the ears and simultaneously affect the cheeks. When the hair is scant the eruption upon the scalp presents a red and crusted or scaly appearance, quite similar to the patches upon the face; but in older children, whose hair is thick, the chief feature of the eruption is the mucilaginous discharge, which occurs here and there as portions of the scalp become torn by scratching or irritated in any way, and which tends to dry and produce an appearance as though a little gum arabic had been poured upon the head and allowed to dry on the hair. This characteristic gumming together of bundles of hair will often enable one by the sense of touch to make as positive a diagnosis of eczema as could be made after the most careful examination of the scalp.

Upon the face the eruption, when at its height, is generally moist and covered with a crust which results from the drying of the characteristic gummy discharge. This alone produces a thin crust like a coat of varnish which cracks whenever the skin becomes more inflamed and swollen, and the discharge oozing through these cracks in the epidermis and drying gradually causes a thickening and a very irregular surface of the crust. Such a crust

is usually quite adherent, unless cast off by a swelling of the skin and a greatly increased discharge, in which case a red, raw and angry looking patch is exposed, which becomes quickly covered by a new crust. Where pus is mingled with the discharge from the skin, as is usually the case in certain forms of infantile eczema, the crust is always thicker, more friable, and of a dirty yellowish hue. Such a crust may remain upon the skin until the inflammatory condition beneath has in great part subsided and then be cast off, leaving a dry, reddened and scaling surface. In many cases of eczema of the face in infants the cheeks are merely reddened and thickened, but not exhibiting any discharge except at numerous points where the skin has been excoriated by the nails and covered with dark blood crusts.

In the etiology of infantile eczema there are certain special factors to be considered in addition to those which have already been mentioned. An inherited, or at least a congenital tendency to eczematous inflammation cannot be denied in many cases, and such are often difficult to cure as the active cause cannot be demonstrated. In many cases an improper diet is a potent factor in the production of the eczema which will yield with surprising rapidity when careful attention is paid to this point. Teething, to which the eruption is so frequently attributed by those having care of infants, has nothing to do with the causation of infantile eczema. Nor has vaccination any etiological importance, in spite of the firm belief of many fond parents to the contrary.

The frequent washing of an infant or child affected with eczema, is one of the most common of means unconsciously employed by the mother or nurse to aggravate the existing inflammatory condition. Many cases can be cured by doing nothing more than insisting upon total abstinence from the use of soap and water.

The diagnosis of infantile eczema is always easy when the characteristic exudation is present. When the eruption is dry, scaly or crusted mistakes sometimes occur. At an early age the outbreak of inherited syphilis might be confounded with it, but it should be remembered that the lesions in such a case are especially liable to accumulate about the mucous orifices, are circular in form when dry, and do not present any symptom of severe itching even when moist. Scabies in young children is liable to be considered as a papular eczema, and the lesions indeed are indistinguishable, but in the latter affection the history of contagion where the children sleeping together are all affected, the limitation of the eruption to the trunk and extremities, and the discovery of the burrow of the acarus upon the soft skin between the fingers or elsewhere will reveal the parasitic origin of the eruption.

Urticaria occuring in children is frequently called eczema. An itching and excoriated skin is to be found in either affection, but patches of eruption are only met with in the latter, while the history which is given of the sudden outbreak and speedy disappearance of red or white lumps points clearly to the former affection.

TREATMENT. In caring for a case of infantile eczema, it is essential that the physician should not only understand what to advise, but he should also see that his advice is followed. Otherwise his skill and advice are of no avail. All directions given must be explicit, and it is usually advisable to have them repeated by the mother or nurse, in order to make sure of their

being understood. In very many cases it is the neglect of certain directions, apparently of minor importance, rather than any peculiar obstinacy of the eruption, which renders the treatment tedious and sometimes futile.

The diet of the infant is usually the first point to be considered, with a view to removing the cause of the eruption. In the case of infants at the breast, it is a very common custom of mothers to nurse the child whenever it cries, and as the crying usually results from a disordered digestion, the practice of giving the breast every half hour only adds to the child's discomfort and aggravates the eruption. If the mother's milk is insufficient in quantity, or not of proper quality, it is much better to wean the infant at once, except in mid-summer, than to attempt to supply the deficiency of nutrition by a partial resort to artificial feeding After weaning it is a common custom, especially among the poorer classes, to give the child everything which is on the table, including tea, coffee, pickles, pastry, &c., the impropriety of which must be duly impressed upon the mind of the infant's nurse or mother. Even among the more intelligent classes, the eczematous child, whose appetite is usually good, is too often allowed to eat at irregular intervals; and at my college clinic I have sometimes taken a number of eczematous infants before the class, each with an apple, a cracker or a piece of candy or sugar in one or both hands. This constant feeding between meals is a frequent source of indigestion in young children, and always tends to aggravate an already existing eczema. A strict injunction to allow the child no solid food, except at its meals, of which it may have four daily, will often produce a decided improvement in the character of the eruption. The bowels should be regulated in many cases, and when, as often happens, the stools are found to be unusually light colored, a mild calomel purge once or twice a week, as recommended by Wilson, will prove of the greatest benefit. The alkaline diuretics which are so frequently called for in the treatment of eczema of adults, may be given for a few days to children whose urine is acid and irritating to the skin of the genital region, but a solution of magnesia or lime water will usually have a better effect and can be continued for a longer time. Of other internal medicines, arsenic and viola tricolor have been especially recommended, but my experience has led me to rely mainly, if not wholly, upon hygienic and dietetic measures combined with local applications.

The value of fresh air as a curative agent in infantile eczema is rarely appreciated as it should be. Its immediate soothing effect upon an eczematous infant who has persistently refused to sleep, or to refrain from scratching for more than a half hour at a time, is often as surprising as it is delightful. It is sometimes difficult to have a child taken out of doors on account of the foolish notion that it is too hot or too cold, too windy or too damp, and often the parents object to having the little sufferer appear in public with its head and face bandaged; but when removed from a hot and close atmosphere to the pure open air for a half hour to an hour or two daily, according to the weather, the beneficial effect upon the eruption will soon be noticeable.

In the use of local applications to the eczema of infants, patience, perseverance, and above all, intelligence, are required. The main object should be to soothe and protect the





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ECZEMA FACIEI.

ARTOTYPE, E. BIERSTADT, N. Y.

skin. For this purpose the application which I have found to be the very best of many which I have employed, is the following:

℞ Salicylic acid, . . . 2 parts.
Subnitrate of bismuth, . . 30 "
Corn starch, . . . 20 "
Ointment of Rosewater to 100 "
M.

This should be spread thickly on pieces of stout muslin and carefully applied, so that every portion of inflamed and moist skin should be smoothly covered. Where there is merely a dry squamous form of the affection present, it can be rubbed over the surface of the skin by means of the finger. The application being pasty rather than oily in character, is more adhesive than the ordinary ointments which have been recommended, and is not so easily rubbed off. Indeed it may be repeatedly applied until a thick, white and rather dry coating forms upon the surface of the skin, which lessens the itching and the redness, and allows a healthy epidermis to form.

Upon the scalp this ointment or paste is not to be used on account of its tendency to mat the hairs together. Upon this region an oily application is preferable. If thick crusts are present they should be removed by a poultice or the application of an oiled silk skull-cap. When removed, the following may be rubbed into the scalp night and morning:

℞ Oil of Cade,
Almond oil, equal parts.
M.

The oiled silk cap may be continued to be worn, and will not only protect the bed-linen from becoming soiled by the tar, but will itself have a good effect upon the eczematous scalp.

ECZEMA OF THE SCALP. In adults eczema of the scalp is by no means as common as among young children. Nor is it as common as eczema of other portions of the body. It is often persistent, however, and demands the most skillful treatment. Its course is generally a chronic one, and although there may be at times a moist discharge at one or more points the eruption is commonly of the squamous type. The crown of the head is its favorite seat, and in some cases the ears are simultaneously affected. The affection begins insidiously, and considerable itching is often endured before the patient discovers the presence of one or more scaly patches. Examination now shows that the affected portions of the scalp are reddened and considerably thickened. The affection is subject to occasional exacerbations, and may subside spontaneously to such a degree that for a while the patient is comparatively free from annoyance. The growth of the hair is never affected in any appreciable degree by the presence of the eruption.

The cause of eczema of the scalp is not always apparent, but even the patient will usually discover that it tends to become aggravated by all attempts to get the scalp clean through frequent washing or digging at the scales with a comb.

The affections with which eczema of the scalp is apt to be confounded are seborrhœa psoriasis, and in certain instances a tubercular syphilide limited to this portion of the body. In seborrhœa capitis, as has already been stated, there is but slight if any redness of the scalp, and the scales are soft and unctuous in character. While with eczema capitis the ears are apt to be involved, with seborrhœa capitis the nose is more apt to be simultaneously affected. Psoriatic patches upon the scalp bear a very strong resemblance to eczema, but they are usually circular and marginate in form and rarely exist without patches of psoriasis upon other portions of the body, which serve at once as a key to their diagnosis. A tubercular syphilide affecting the scalp likewise possesses this abrupt margin. But it is unaccompanied by pruritus, and the nodules seen upon a careful examination of the scalp tend to softening and ulceration, which in time results in cicatrization and partial baldness.

TREATMENT. One of the very best applications for the cure of eczema of the scalp is the oil of cade. It may be applied of full strength, even when there is a slight amount of moisture present, for the scalp appears to tolerate the stimulant action of this remedy when a similar moist eczema of other parts would only be aggravated by it. As the odor and color of this application render its use objectionable in many cases, in private practice a less efficient remedy must often be employed. When there is but slight thickening of the skin a little ammoniated mercury ointment may be rubbed into the scalp with the finger every night and morning, and when the itching is very annoying an ointment of naphthol of from three to five per cent. may be advantageously employed. It is hardly necessary to say that a thin layer of ointment smeared over a thick crust will have no effect upon the diseased skin beneath. Cutting the hair short facilitates treatment; but in the case of women and young girls who are reluctant to be cropped, it is never absolutely necessary.

ECZEMA OF THE FACE. An acute attack of eczema may occur upon the forehead and cheeks, assume the vesicular form and be accompanied by considerable burning pain and swelling. This usually runs its course in from one to two weeks, although where an eczematous tendency is present the eruption may assume the chronic form. For this condition a dusting powder of bismuth and corn starch or a lead lotion is advisable during the inflammatory stage, and a bland ointment to be applied when the skin begins to desquamate.

Eczema of the face, however, usually assumes a chronic erythematous form in adults, and is most apt to affect the eyelids and neighboring parts. The eruption begins with a dry, harsh and intensely pruritic condition of the skin which gradually becomes thickened and covered with a mealy desquamation. The skin presents a pinkish or light-red hue and there is rarely any moisture of the surface from beginning to end. The natural furrows become deepened, and the itching is of such a character as to render this eruption one of the most annoying that could be imagined, especially when the patient is of a highly nervous temperament.

In appearance, erythematous eczema of the infra-orbital region may bear a close resemblance to rosacea at first glance; but while the hyperæmia is passive and the skin is cool in the latter affection, the skin is actively congested and elevated in temperature in the former.



ECZEMA.



SYCOSIS.



TRICHOPH

ARTOTYPE E. BIERSTADT, N. Y.

It can be readily distingui hed from erythematous lupus, which often presents a similar hue and slight amount of desquamation, by the absence of the marginate border which is always present in the case of lupus.

TREATMENT. Until the congestion of the face can be lessened by attention to the digestive functions, and perhaps by mild purgatives continued for several days, a lotion of hamamelis may be kept applied to the affected skin by means of saturated linen cloths. This will give temporary relief, though it may have no curative effect. A mildly stimulating ointment is now advisable; and the following is one which has yielded excellent results in my hands:

℞ Oil of Cade, ... 5 parts,
Ointment of oxide of zinc, to 50 "
M.

ECZEMA OF THE BEARD. The bearded portion of the face is the seat of several skin affections, chief of which are eczema, sycosis and trichophytosis. These affections, when attacking the beard, present no important features which are not present when they occur upon the scalp or elsewhere. Eczema of the beard, though naturally occurring only in adult males, tends to assume a severe grade of inflammation, but differs in no essential regard from eczema of the scalp. Sycosis is an affection which generally attacks the beard, but in rare instances it occurs on hairy parts elsewhere, and presents the characteristic features of the disease, viz., suppurating nodules, developing about the roots of the hairs. Trichophytosis, or "ring-worm" of the beard, has, in the great majority of cases, the same features as when met with upon the scalp and non-hairy parts, and does not deserve a different name. Indeed, much confusion has been introduced into dermatology by the application of different names to the same disease occurring on different portions of the body.

Eczema of the beard is characterized by the symptoms of eczema in general, redness, burning or itching, exudation, with a tendency to the formation of crusts, and finally, thickening of the skin and desquamation. Some writers claim that a pustular eczema of the beard, which of all the forms of eczema bears the closest resemblance to sycosis, can be distinguished from the latter by its extending beyond the hairy parts, upon the cheeks and neck, whereas sycosis is strictly limited to the hairy parts. This point is not always to be relied upon. In a large number of cases, the eczematous nature of the eruption is clearly shown by its occurrence upon those favorite localities, the ear and eyelids, but its tendency to attack and confine itself, like sycosis, to the hairy parts, is shown by its presence in the pubic region, and its conspicuous absence beneath the corners of the mouth, where the growth of the beard has not begun.

The first step to take in the treatment of eczema of the bearded portion of the face is to dispose of the beard. This may be clipped very closely with fine scissors, shaved, or pulled out, as the necessities of the case demand. When the eruption is crusted, or the skin acutely inflamed, and exuding freely, shaving is for the time almost impossible. The hairs should be cut as short as possible with scissors, when, by a poultice or repeated inunction of oil, the

crusts can be removed. If now the skin is tender, and shaving proves to be a painful operation, it is well to continue the use of the scissors in preference to the razor. In the majority of cases, however, shaving can and should be performed at least thrice weekly, while the ordinary treatment for eczema is carried out. When the affected part is hot, swollen, and discharging serum, I have seen excellent results follow moderate purgation kept up for two or three days, combined with hot fomentations, or the application of the zinc oxide ointment spread on soft rags, and held in place by a bandage. An infusion of senna or viola tricolor, or the compound jalap powder may be used as a purgative. When the acute inflammation has subsided under the influence of emollient applications and due attention to the patient's general health, and the eruption has assumed the character of a dry, reddened and scaly patch, the officinal ointment of sulphur or of the nitrate of mercury may be used, diluted with from three to five parts of cold cream. When the morbid process shows a tendency to extend from the surface to the deeper portion of the hair follicles, the skin usually assumes a lumpy appearance resembling sycosis, and pustules develop around the hairs. In such a case, the treatment already mentioned is of but little benefit, and epilation is called for. The hairs are usually firm, and consequently extracted with pain. A small drop of blood occasionally follows the epilation of certain hairs, but this only acts as an antiphlogistic, and the improvement within twenty-four hours is often as surprising as it is pleasing. To allay the pain I have in some cases held a piece of ice in contact with the skin for a few minutes before extracting the hairs. When the inflammation has attacked the deeper parts, the hairs are loosened, come out with gentle traction, the root sheaths being bathed in pus. In such cases the excessive suppuration is apt to destroy the follicles, and lead to permanent baldness of the part.

ECZEMA OF THE EARS. While in children eczema is very frequently observed behind and around the ears, among adults the disease is more liable to affect the auricle itself, and the external auditory meatus. The affection is usually a chronic one, although at times an exacerbation occurs, and the skin becomes the seat of a moist discharge. When the disease has persisted for months or years, as is sometimes the case, the auricle becomes swollen, indurated, and scaly. Its natural pliability is completely lost, so that the patient is unable to rest the head at night except upon the occiput, and even then a painful fissure is very apt to form in the post auricular furrow.

The diagnosis of eczema of this region is very simple in the majority of cases. Erysipelas and erythematous lupus can be distinguished by the febrile condition accompanying the former disease, and the marginate character of the patches and the absence of itching which characterize the latter affection. Psoriasis sometimes occurs in the form of a scaly patch behind the ear and extending upon the auricle, but it is never limited to this region, as may be the case with eczema, and the presence of psoriatic patches elsewhere will settle the diagnosis.

TREATMENT. Chronic eczema of the auricle is generally an obstinate affection, and yields reluctantly to the most judicious treatment. To lessen the infiltration of the skin, which should be our main object, a stimulating application is required. An ointment containing tar





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ECZEMA SQUAMOSUM.

SYPHILODERMA SQUAMOSUM.

ARTOTYPE E. BIERSTADT N. Y

napthol or ammoniated mercury fulfils this indication, while keeping the scales softened and removed and protecting the skin from the irritating influence of the air. A pasty ointment which will adhere to the skin is preferable to a greasy ointment which will soak into the clothes upon which it is applied, and the following will be found of service:

℞ Calomel,	. . . . .	15 parts,
Starch,	. . . . .	10 "
Oil of cade,	- - - -	5 "
Petrolatum to	. - . -	50 "

M.

When eczema affects the external auditory canal there is often but a slight redness and scaliness to be seen, but considerable annoyance is experienced by the patient. The constant digging at the ears with the finger, a pin, or some other instrument, to which the patient resorts for the temporary relief of the itching, only aggravates the trouble, until in time such a thickening of the membrane and resulting desquamation is produced that the canal is partially occluded and slight deafness is occasioned. A purulent discharge is sometimes present, and the obstinacy of the affection under such circumstances, a fact noted by most aurists, may be due in great part to frequent syringing of the canal with soap and water. As the frequent application of water is usually harmful to eczema of any part of the body, it is advisable to direct the patient to abstain from its use in cleaning the auditory canal. The scales which accumulate rapidly must of course be removed, but this can be done by the use of a large camel's hair pencil dipped in oil or in oxide of zinc ointment made thin by the addition of glycerine. When the canal is clear and the discharge has ceased the oil of cade may be applied readily by means of the brush, and usually with good effect in lessening the annoying pruritus and restoring the skin to its healthy condition. When the grade of inflammation is extremely chronic and there is much infiltration of the skin, extending even to the *membrana tympani*, the application of a strong solution of nitrate of silver has been strongly recommended. In my experience the use of a two per cent. ointment of chrysarobin has been productive of the best results.

ECZEMA OF THE HANDS. Although eczema may attack either the palmar or the dorsal surface of the hands, it rarely occurs in a marked degree upon both at the same time. One hand only may be affected, although the disease is commonly found on both, and is sometimes quite symmetrical. On the back of the hand, eczema is more apt to be of internal origin, and to co-exist with patches on the arm or elsewhere. When of long standing it may be papular or squamous, but it usually assumes the ichorous form. On the palm, eczema differs in many respects from the disease as it occurs elsewhere, and demands a peculiar mode of treatment. As met with in practice it is usually dry, and characterized by horny scales, and by deep, painful fissures occurring in the lines of flexion. Sometimes the whole palm is affected. More frequently the disease occupies but a portion, and appears as a single diffused patch or a number of isolated scaly patches of a more or less circular form. Eczema of the

palm is usually chronic (in one sense of the term) from the very outset. It begins at one or more points with redness and itching, and after much gentle scratching or rubbing with the hand it develops into a somewhat thickened and scaly patch. This increases in size by peripheral extension, or creeps over the palm with a circumscribed and curving border, very much like a squamous syphilide. There is a wide variation in the appearance of different cases. Upon a soft-skinned palm, the redness, infiltration and desquamation of typical eczema are seen, while in another case nothing is apparent but whitish patches of horny epidermis, which the patient is constantly picking or digging with the finger-nails of the other hand. Where much inflammation is present of an acute grade, the palms become swollen, and numerous fissures result from flexion and extension of the hands, until the latter become too painful to be used, and are held by the patient like claws, in a rigid and semi-flexed position. In old cases, where the outer layers of epidermis have been gradually removed, the skin of the palms is notably reddened, feels harsh and dry, though quite smooth, and the natural lines and furrows are greatly exaggerated. When the fingers in such a case are forcibly extended the blanching of the palm, which occurs to a slight degree in a healthy hand, is well marked and characteristic.

The diagnosis of eczema of the hands is usually simple. Palmar eczema, however, may bear such a strong resemblance to scaling syphilitic patches that experienced dermatologists are often unable to make a positive diagnosis from a mere study of the lesions. According to text-books, eczema presents irregular patches, covering perhaps the whole palm and itching severely, while syphilis is characterized by smaller circular patches, with more infiltration of the skin, a circumscribed border, and an absence of itching. But there are very many exceptions to this rule. Eczema may occur in a form of small circular patches and in the center of the palm, may have a well-defined border and spread over the palm in a serpiginous manner, while a palmar syphiloderm may itch and crack and be aggravated by putting the hands in water, and, in short, appear exactly like an eczema. I know of but one infallible rule to apply. If a number of small scaly spots are arranged in a semicircular or horse-shoe form, with an inclosed area of healthy skin, or if a spreading circular patch exhibits an infiltrated margin and a healthy or healing center, the patch is of syphilitic origin. In a doubtful case the history of the patient is of little value, as the palmar syphiloderm, liable to be confounded with eczema, is a late manifestation of the disease, and so many syphilitic persons, particularly females, are unaware of ever having contracted the disease. The scaling papules, accompanying or following the early secondary eruption, ought never to be mistaken. Even with a clear history of syphilis, eczema may occur as an independent affection. "Psoriasis" is a term applied by many to every scaly palmar patch, irrespective of its etiology, but among dermatologists the term "syphilitic psoriasis" is rapidly becoming obsolete. True psoriasis is of so rare occurrence upon the palms that it is not likely to occasion an error in diagnosis in many cases, and as it is very rarely if ever limited to the palms, the presence of the characteristic white scaly discs upon other portions of the body ought to prevent its being confounded with eczema of the palm.

The local treatment of eczema occurring on the backs of the hands requires no special directions. Soap frictions are useful in the papular form, accompanied with induration of the skin, and even in the case of moist patches, soap, though a harsh remedy, may be used once or twice to remove the dried exudation and dead epidermis in order to give a free exit to the confined serum. The diachylon ointment may then be spread thickly on pieces of soft cloth, and kept constantly applied to the moist, reddened surface. The affected fingers may be bandaged separately and tightly, and the hands must be kept out of water until a new epidermis has formed and there are no more fine beads of exuding serum.

Eczema of the palm requires a method of treatment quite different from that of eczema elsewhere. The thickened epidermis must be removed, the painful cracks healed, and the infiltration of the corium absorbed. The skin must then be kept in a soft, pliable state, until the redness has in a great measure faded and there is little tendency to itching and scaling. Though the occasional dipping of the hands in water is harmful, there is scarcely a better mode of lessening the inflammation, and at the same time macerating the epidermis than by ordering the patient to place the palms in a shallow vessel containing a little more than enough water to cover the bottom. The water should be as hot as can be borne, and the palms kept in it for at least fifteen minutes at a time. When there are horny patches, unaffected by the water, glacial acetic acid, or liquor potassæ applied on a glass rod will be found to soften them quickly. These strong applications must be handled with care, lest severe pain be caused by their getting into the cracks. But the cracks are merely the result of the thickened and indurated epidermis, and it is useless to heal them and have them break open again. If their cause, viz., the thickened epidermis, be removed, they will heal of themselves and remain healed. Rubber gloves worn constantly (with the rubber side next to the skin) act beneficially in most chronic and obstinate cases. After the thickened epidermis has been removed and the cracks healed, the palms may remain for a long time reddened, dry and harsh, with a constant tendency to become worse again. An ointment containing ten per cent. of oil of cade in vaseline does well in such cases, but success will depend less upon local measures than upon the internal treatment adapted to eczematous cases in general and to this patient in particular.

ECZEMA OF THE FEET. Most of what has been said of eczema of the hands will apply to the disease as it appears upon the feet. Here it may exist alone or it may co-exist with eczema of the hands. If severe it usually interferes with locomotion. Between and around the toes the eruption is apt to assume an acute form, and the toes must be bandaged separately like the fingers, or kept apart from one another by the interposition of absorbent cotton. A horny condition of the soles can be advantageously treated by the repeated application of the following lotion :

℞ Salicylic acid, ... 10 parts.
Alcohol to . . . . . 100 "
M.

ECZEMA OF THE ANUS AND GENITAL REGION. The anus, perinæum, vulva, penis and scrotum are often the seat of eczema, and though the affection in this region is usually quite limited in extent it is capable of producing the greatest amount of annoyance and even distress. In many cases there is simply intense pruritus with very little redness and thickening of the affected skin. In other cases there is to be found a decided infiltration of the skin with more or less scaling and a marked tendency to the production of fissures and excoriations Finally there are cases in which the vulva of the female and the glands and under surface of the penis and the sides of the scrotum in the male are entirely denuded of epidermis and exquisitely tender. In these cases the sufferings of the patient are almost intolerable. Locomotion is difficult, refreshing sleep is unattainable and daily existence is fraught with misery.

TREATMENT. Success in the treatment of eczema of the anus and genitals usually depends upon the ability of the physician to discover and remove the cause of the eruption or the conditions which tend to aggravate it. Local treatment is always valuable as a means of palliating the symptoms, but it rarely proves curative, and the common mistake should be avoided of depending wholly upon external treatment.

In eczema of the anus a disordered digestion is almost invariably at the root of the trouble; and attention to diet is worth more than all the ointments or lotions ever recommended. The patient is usually constipated, although he may assert that his bowels are perfectly regular, and, indeed, as a result of training, they may move once a day. A tendency to hemorrhoids is a usual concomitant of the itching, and with this occurs the frequent dullness or headache indicative of obstructed portal circulation. The patient is generally of sedentary habits, and, having a good appetite, is disposed to eat a great deal more than he can digest. The first step in treatment then is to restrict his diet or to increase his amount of daily exercise, or, if possible, to do both. It is usually much easier for the physician to lessen the food than to increase the exercise of the average patient; and as there is no particular kind of food to which the pruritus or eczema of the anus can be attributed, I have followed the plan of prescribing but one meal daily, at which the patient can eat whatever he likes and as much as he likes. In place of the other two customary meals the patient may be allowed a glass of milk, if this does not produce a coated tongue and increase the constipation, or, what is usually better for him, a cup or two of hot water with one or two graham crackers. This plan of dieting gives the stomach and other digestive organs the rest which they usually need, and in obstinate itching of the anus will often render the use of local applications quite unnecessary. When, however, there is much thickening of the skin about the anus, some soothing local remedy may be simultaneously employed. Innumerable have been the applications recommended for this purpose, but the one which has seemed to me to do the most good in the largest number of cases is the officinal chloroform liniment. In many patients of a nervous temperament the use of tobacco, even in moderation, will serve to aggravate the affection, and hence in every obstinate case, it is well to proscribe this, together with indulgence in tea, coffee and alcoholic stimulants.



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DERMATITIS EXFOLIATIVA.

[illegible] E. B. TREAT, N. Y.

In eczema of the scrotum a similar plan of diet will prove beneficial, though perhaps to a less extent than in eczema of the anus. Local treatment will naturally vary in accordance with the grade of inflammation and condition of the skin. When there is a moist surface or numerous excoriations the most cooling application is the salicylic and bismuth ointment already mentioned in connection with infantile eczema. When the skin is thickened, dry and harsh a napthol ointment of from three to five per cent. strength will lessen the itching and gradually soften the skin. In very chronic cases the compound chrysarobin pigment may be used. This occasions considerable smarting for five or ten minutes after its application, but it will usually secure to the patient a quiet sleep at night, and if frequently applied will soon restore the skin to its normal condition.

In severe eczema of the vulva or penis an examination of the urine should be made from time to time, as a diabetic condition is frequently the underlying cause of the eruption, which will continue to resist all treatment until by a judicious modification of the diet the sugar disappears or is reduced to a minimum in the urine.

ECZEMA OF THE LEGS. Eczema of the lower portion of the legs is common in middle life and old age. It is usually of long standing, and requires stimulation. When the eruption is dry, as in the erythematous and papular forms, the skin is simply reddened, harsh, itchy, and more or less excoriated. Daily frictions with green soap will soften the skin and relieve the itching. After using the soap, the legs should be carefully dried, and a slightly astringent ointment applied. In the squamous form, the soap frictions will remove the scales and often cause an exuding surface to appear. This temporary aggravation, however, by stimulating the flow of the blood through the part and promoting absorption, will speedily reduce the thickening of the skin. In the ichorous form of eczema (well shown in the plate of Eczema *cruris*), and in the squamous form when there is any tendency to a discharge, the application of vulcanized rubber cloth is one of the best plans of treatment. It cleanses and cools the surface, promotes a copious flow of serum, and quickly lessens pain and swelling. The cloth should envelop the leg with the rubber surface next to the skin, and be held in position by a roller bandage. When the ankle is affected, the cloth may be gored or cut so as to fit smoothly. The rubber bandages, to be described later in the treatment of varicose conditions, are sometimes preferable, though more likely to irritate the healthy skin. When the leg has returned to its normal size, and the exudation has nearly ceased, the rubber is no longer of service, and the cure may be completed by applying the nitrate of mercury ointment, one or two parts, to the oxide of zinc ointment, eight or nine parts. When the skin is infiltrated, itchy and scaly, but only to a slight extent, the preparations of tar can be advantageously employed. Where there is an exuding surface the use of tar is contra-indicated.

The permanent dilatation of veins to which the term varicose is applied begins usually in early or middle life, and affects chiefly the internal saphenous and its branches. The enlarged vein may be simply distended, or it may be hypertrophied, and either form a tumor by doubling on itself, or run a serpentine course for a short distance. About the ankle and

on the dorsal surface of the foot, it is common to find the venous twigs dilated, and appearing as numerous purplish blue dots or streaks. The cause of varicose veins is not always apparent, although ill health, standing occupations, pregnancy, tight garters, etc., doubtless exert an influence in their production. The result of their presence, however, rather than their causes, renders them of importance from a dermatological standpoint. In many persons varicose veins of the lower extremities exist for years without producing any effect upon the skin, or even inducing any feeling of discomfort. Given, however, a tendency to eczema in such a case, and it will not be long before some external irritation will provoke an eruption which will prove rebellious to ordinary treatment, on account of the œdema and infiltration of the skin, which in time becomes associated with varicose veins of the leg.

TREATMENT. The treatment of varicose eczema involves the ordinary therapeutic measures adapted to the cure of the disease, with the addition of a support for the enlarged veins. So long as the limb is allowed to swell daily from pressure or a column of blood, so long will lotions and ointments fail to effect a cure. If the limb cannot be maintained in a horizontal position (and exercise is as desirable in many cases as it is unavoidable), some form of bandage or elastic stocking is required. The ordinary roller, if smoothly applied, answers a two-fold purpose in compressing the limb and keeping the dressings in place. But rarely do we find a patient who can make the reverse turns properly, and a bandage twisted around the leg and drawn tight to keep it from sliding down will do more harm than good A flannel roller is preferable to one made of cotton cloth, on account of its greater elasticity and softness, and when applied moist it will produce a tolerably firm compression of the leg. As for the elastic stockings in the market it may be said that the cheap ones are useless, while the good ones are too expensive for a large class of patients. The rubber bandage introduced by Dr. Martin has of late become widely known and deservedly popular. It not only supports the dilated veins and thus tends to remove a cause of the eruption, but by its local action it macerates the epidermis, and facilitates the escape of serum confined in the skin and subcutaneous tissue. By its elasticity it exerts a constant pressure on the leg, and induces a rapid absorption of the products of inflammation. It is, in fact, a happy combination of the impermeable rubber dressing and the elastic stocking. It can be applied by any patient of average intelligence, as no reverse turns are needed; it can be tightened or loosened with ease, and, unlike the ordinary roller, which speedily becomes loose, it maintains its pressure even when the leg decreases in size by subsidence of the œdema. The rubber bandage should be applied in the morning before the patient gets out of bed. At night, after its removal, both leg and bandage should be washed and carefully dried. The bandage may now be re-applied, or if the infiltration has nearly disappeared, and especially if the skin is much irritated, it is better to dress the leg with an emollient ointment and to wait until morning before re-applying the bandage. In cases where the bandage is applied for an eczema of the ankle or lower part of the leg, the healthy skin above may become irritated. This can be prevented by dusting the sound skin night and morning with powder of starch, oxide of zinc or bis-



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PSORIASIS GUTTATA.

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muth, but it indicates an eczematous tendency on the part of the patient and suggests greater reliance on internal medication.

PITYRIASIS.

Pityriasis is a mild affection of the skin, in which a very slight redness and a mealy or branny desquamation are the chief features. There may be a trifling amount of infiltration of the skin when the affection is well marked, and a sensation of heat or pruritus; but ordinarily the skin is not thickened in any noticeable degree, and no especial discomfort is experienced. The scales are small, white, not imbricated, as in psoriasis, and very readily removed by friction. When rubbed or washed away, they form again very quickly. The disease occurs in patches of variable size, the borders of which shade off into the surrounding healthy skin. It is most frequently met with upon the scalp and face, but may occur upon the neck and covered portions of the body. Upon the scalp it constitutes a dry form of dandriff in which the scales are not fatty in character, as in seborrhœa capitis, but are composed wholly of fine epidermic flakes. It is the kind of dandriff in which the scales do not adhere to the scalp, but fall copiously whenever the hair is brushed, and accumulate upon the shoulders. It is usually the result of a pre-existing erythematous condition of the scalp, is very chronic in character, and usually indicative of a lowered vitality of the scalp, if not a condition of general nervous debility. Care, anxiety, or dissipation will often produce an immediate effect in augmenting the amount of desquamation and the falling of the hair, which, in time, becomes an inevitable concomitant of dandriff. The eye-brows and beard are often simultaneously affected with the scalp.

Upon the face, pityriasis is most apt to occur in the winter season, and after exposure to harsh winds. Those subject to the affection are usually found to have a preternaturally dry skin, and in infants and young children an eczematous tendency is commonly present.

When caused or aggravated by external influences, the eruption may only last for a week or two, but in many cases it is quite persistent.

Diagnosis. The diagnosis of pityriasis from a mild case of erythematous or squamous eczema, is not readily made, and indeed many writers do not admit that pityriasis is a distinct disease. In many cases pityriasis gradually merges into eczema, but when there is merely a rosy colored patch of skin, covered with fine white scales, the clinical appearance is quite different from eczema, and the infiltration or thickening of the skin, the cracking of the epidermis with a tendency to moisture, and the annoying pruritus, which are essential elements of the latter affection, are never met with in the former.

Psoriasis sometimes appears in patches of a pinkish color, and with very little scaling, but in such cases the marginate border of the patches, their characteristic localization, and their symmetrical development would prevent an error in diagnosis.

Trichophytosis of non-hairy parts sometimes presents an appearance very similar to that of pityriasis, as far as color and desquamation are concerned, but the outline of the patches

is quite different in the two affections. In ordinary pityriasis the patches are not usually circular, and have no well defined margin, while in ring-worm these are characteristic features.

Seborrhœa is the affection with which pityriasis is most apt to be confounded, and as has been already stated, when these affections occur upon the scalp, a strict differential diagnosis cannot always be made. Upon non-hairy parts the patches of pityriasis feel dry and harsh, while those of seborrhœa feel greasy to the touch, and may leave a trace of oil upon the finger which is passed over the affected skin.

TREATMENT. The inunction of any fatty substance will suffice to cure many cases of pityriasis, but a slightly stimulating ointment, such as the following, will usually act more rapidly.

℞. Ointment of Ammoniated Mercury,
Ointment of Rose Water, - equal parts.
M.

For pityriasis capitis this ointment may be rubbed into the scalp daily upon the tip of the finger, and the head shampooed with the tincture of green soap once or twice a week. If the greasy nature of the application renders it objectionable, the following lotion may be employed with benefit.

℞. Chloral, - - - - - - 5 parts.
Tincture of Veratrum Album. - - 10 "
Perfumed Spirit, - - - to 100 "
M.

In pityriasis of the face, the effect of water frequently applied, and exposure to cold winds, are apt to be as irritating as in cases of eczema. It is therefore advisable to apply some soothing ointment or lotion immediately after washing, and always before going into the open air. The following lotion will be found of value to prevent the skin from becoming rough and chapping.

℞. Borax, - - - - - - 3 parts.
Glycerine, - - - - - 5 "
Rose Water, - - - - to 100 "
M.

DERMATITIS EXFOLIATIVA.

Synonym—Pityriasis rubra.

Exfoliative dermatitis is a comprehensive term which is now applied to certain rare cases of skin disease, which are characterized by intense redness of the skin and desquamation of the epidermis in large flakes. It probably includes one or two distinct affections, but in the present state of our knowledge it is hardly possible to separate them. While some cases



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PSORIASIS NUMMULATA.

ARTOTYPE E. BIERSTADT, N Y

have appeared in an acute form, the majority of those described under the title pityriasis rubra, or dermatitis exfoliativa, have been extremely chronic in their course, evincing a tendency to recurrent exacerbations or relapses, and frequently terminating in death from marasmus or exhaustion. The disease has been limited in a few cases to a portion of the body, but as a rule, the hyperæmia and exfoliation are general, and not the smallest portion of skin remains unaffected.

In those cases which have been observed in the incipient stage of the disease extensive reddened patches covered with a fine desquamation have appeared in the axillary inguinal and popliteal regions. These have spread rapidly until they have invested the entire surface of the skin. At this stage the eruption is very striking in appearance. The skin is of a rather bright red color, with perhaps a duller or somewhat livid hue upon the extremities, and the local temperature is elevated. Pressure of the finger caused the hyperæmia to disappear, leaving the skin of a yellowish tinge, and pinching up a fold between the thumb and finger shows that there is very little, if indeed any, infiltration and thickening. The desquamation which is persistent and abundant is made up of thin flakes which curl up at the margin, while adherent in the centre to the underlying skin. These flakes are usually of large size, and when forcibly removed leave a smooth, glazed, or a slightly moist surface.

The patient experiences a moderate amount of pruritus, in some cases, and invariably complains of a sensation of chilliness. This condition may persist without any notable change for one or two years. In time the skin begins to appear tightly drawn, as though it were too small for the body. Fissures and ulceration are now liable to occur. The expression of the countenance becomes greatly altered from the resulting ectropion of the lids and lessened mobility of the lips, and the fingers and larger joints are usually partially flexed. The hair and nails lose their lustre, become friable, and are often lost. The general health fails, and without the best of care and nursing, the patient falls into a pitiable condition.

Diagnosis. The affection which bears the closest resemblance to exfoliative dermatitis is a chronic universal eczema of an erythematous or squamous type. In this affection, however, there is apt to be considerable thickening of the skin, a most annoying pruritus and at some time and in some locality a moist surface, with the peculiar mucilaginous character of a typical eczematous discharge. At the same time, it must be borne in mind that in some cases of exfoliative dermatitis we may have a slight thickening of the skin, more or less pruritus, and a thin serous moisture of the skin when the flakes of epidermis are removed.

Psoriasis universalis might be mistaken for exfoliative dermatitis, but the similarity is by no means so striking as in the case of eczema. Psoriasis rarely, if ever, covers every inch of skin, but usually leaves some small portions in a normal condition. It is a perfectly dry eruption, and is not associated with any marked impairment of the general health. The scales may be thick and horny but are never seen in large papery flakes, and the eruption, however extensive or chronic, is always disposed to yield to a judicious local treatment.

Pemphigus foliaceus may, in certain cases, and at certain times, be indistinguishable from exfoliative dermatitis. The occurrence of flattened and imperfectly formed bullæ in

the former affection, is the only distinctive feature. The present tendency of dermatological writers is to class these two affections together, and I may quote an opinion expressed nearly ten years ago in connection with the report of a case of pityriasis rubra. (Archives of Dermatology.) "In the extensive exfoliation of cuticle, in the serous exudation which in the one case imparts to the skin a peculiar moisture, and in the other case lifts the epidermis into bullæ, in the marasmus of the latter stage, and in the slow recovery if not the fatal termination of either disease, we observe a striking similarity, and I venture to say that a deeper insight into the etiology and nature of skin disease will yet reveal an intimate connection between these two affections." Hyde, who, describing pityriasis rubra and pemphigus foliaceus as two forms of exfoliative dermatitis, writes as follows: "If it be objected that pityriasis rubra and pemphigus foliaceus should be disassociated because the former is a dry and non-discharging disease, and the latter a moist and exuding affection, characterized always at first and often at last by the occurrence of blebs, the answer is sufficiently ample. The same arguments precisely which demonstrate the identity of erythematous, papular and vesicular eczema, will indissolubly connect the two affections under consideration."

TREATMENT. Little can be done in most cases of exfoliative dermatitis which will influence the course of the disease. Arsenic has been thoroughly tried and found wanting. Fresh air, nutritious food and tonics will prove of some value, and the frequent inunction of linseed oil in large quantity will keep the skin in a comparatively comfortable condition. Tilbury Fox was a strong advocate of the value of alkaline diuretics given with a view to relieve the cutaneous congestion by stimulating the kidneys to increased action. In one case, I have noted a remarkably beneficial effect follow the administration of drachm doses of acetate of potassium, three times daily. At best, the prognosis in this affection is extremely grave.

PSORIASIS.

Synonyms—Lepra—Alphos—Dry tetter.

This very common affection consists in circumscribed patches of red and thickened skin, covered usually with whitish or yellowish-white scales. The patches may be isolated or confluent. In the former case they vary in size from a pin-head to a saucer, and are circular in form. In the latter case they give rise to large irregular patches, with scolloped borders, and frequently with inclosed areas of normal or slightly pigmented skin. In some cases the entire body and especially the trunk may be affected, and appear reddened, thickened, and more or less scaly. The patches always begin in the form of small red papules, surmounted by a thin scale. These may be scattered abundantly over the body, and show little or no tendency to increase in size (P. punctata). They are more apt, however, to assume the size of a cent or quarter-dollar, and when numerous and aggregated they appear as though a handful of thin mortar had been spattered over the skin (P. guttata). In a small number of cases the patches are few and large, and appear like silver coins of large size (P. nummulata). Generally the patches tend to coalesce as they increase in size, and lose their circular outline



PSORIASIS ANNULATA.

ARTOTYPE E. BIERSTADT N. Y.

(P. diffusa). In nearly all cases the central portion of the patch is the first to disappear, and in consequence scaly rings are produced (P. annulata) and in rare instances crescentic and serpentine lines (P. gyrata). The scales of psoriasis are imbricated, and in most cases easily removed. In appearance they have been compared to silver and to mother of pearl. Their thickness is usually in proportion to the amount of infiltration of the subjacent skin. In diffused patches they are often branny in character, while in chronic cases they become thick and hard, like plates of armor. The extensor surfaces of the extremities, the back and the scalp, are the favorite sites of the affection. Upon the elbows and knees and along the frontal margin of the scalp it occurs with the greatest frequence, although it is not invariably present upon these parts.

Of the etiology of psoriasis very little is known. It occurs under the greatest variety of conditions and shows little or no partiality for any climate, race, age or sex. Its relationship to syphilis and to tuberculosis has been claimed by some, but never satisfactorily demonstrated. Lang has recently attempted to prove its parasitic character. It is not contagious, but in very many families the hereditary transmission of the disease or of a tendency to it is quite manifest. When a tendency to psoriasis exists clinical observation shows that pregnancy, lactation, or whatever reduces vitality tends to provoke the eruption, and even external irritation or injury to the skin will often determine the localization of the lesions. While some writers connect psoriasis with a dartrous or rheumic diathesis, others regard it as a purely local disease. The symmetrical nature of the eruption which is almost invariably one of the most striking features would seem to indicate that the disease was constitutional and either dependent upon some dyscrasia or lesion of the nerve centres which control the formation of the horny stratum of the epidermis. The majority of psoriatic patients seem as strong and hearty as the average of mortals, and if not in perfect health, they at least believe themselves to be so.

Diagnosis. The diagnosis of psoriasis is generally easy, especially in typical cases. It must be constantly borne in mind, however, that the eruption may be in its declining stage or modified by previous treatment, in which case it differs greatly in appearance from the eruption when seen at its height and before treatment. If a psoriatic patient is stripped sufficiently to reveal the greater portion of the eruption, a diagnosis can readily be made by observing the characteristic configuration of the patches even when viewed at a considerable distance. When the eruption is seen in its incipient stage, and only a few scaly points or drops are present, a diagnosis can often be arrived at by observing the ease with which the scale can be removed by the finger nail, and the bleeding corium which is exposed beneath it. Too much stress, however, is often laid upon this point, as in some cases of eczema, where the eruption is recent and accompanied by slight scaling and little or no infiltration of the true skin, the finger nail may remove the epidermis as readily as in psoriasis, and a number of bleeding points will be seen springing from the lacerated papillæ. If the condition of the eruption, together with its location, does not settle the diagnosis, the history of the case will generally furnish the necessary clue. Its occurrence at certain seasons of the year, and its

partial or complete disappearance at others, its absolute and persistent dryness, and its tendency to relapse after being apparently cured, are features of the case which point only to psoriasis.

The papulo-squamous syphilide is the one eruption above all others which may bear a close resemblance to a typical psoriasis, and in certain cases it is very difficult, if not impossible, to make a diagnosis of the eruption without taking into consideration the history and concomitant symptoms. If the eruption is chronic and has disappeared and reappeared from year to year it is undoubtedly psoriatic, while on the other hand, if it has developed recently and extensively, and is associated with other unmistakeable symptoms of syphilis in its early stage, the syphilitic nature of the eruption is highly probable. It is commonly stated that psoriasis affects the extensor aspect of the extremities, while the scaling papular syphilide is seen chiefly upon the flexor surface. Too much stress must not be laid upon this point, for exceptions to the rule in either disease are common. Nor is the presence or absence of itching a trustworthy point of differential diagnosis, for in certain cases of psoriasis there may be very little or no itching, while in nearly all squamous syphilides the patient will confess to a slight pruritus if questioned in regard to the matter.

The color of the lesions in the two diseases is practically the same and is never characteristic. The scaling is usually more abundant upon the psoriatic guttæ, while the infiltration of the skin is more marked in the syphilitic lesions.

Eczema, in its squamous form may be mistaken for psoriasis when, as occasionally happens, it occurs in orbicular patches with a circumscribed border. The limited extent of the eruption, its non-symmetrical location, together with the pruritus and a tendency to become moist and form crusts instead of scales when the surface is violently rubbed, are points which will usually lead to a correct diagnosis.

Treatment. The treatment of a case of psoriasis is simple as far as regards the removal of the eruption. It is a much more difficult matter to prevent its return. In nearly every case there is undoubtedly a morbid condition of the economy, an ill-defined something, deeper than the scaly patches. Some call this the disease, and regard the cutaneous affection as a mere symptom. Others apply the term psoriasis solely to the cutaneous lesions, and look upon internal morbid conditions as predisposing causes. The supporters of the diathetic nature of psoriasis assert that local measures cannot cure the disease, while others claim that when the skin is restored to its normal condition the disease is cured for the time being, although the imperfectly understood causes still existing may induce its return. This is a mere quibble. Local applications will restore the skin to its normal state in nearly all cases, while in many it is extremely difficult to prevent relapses, even with internal treatment. Most cases of psoriasis demand a combination of internal and external treatment, but where the general health is good, local treatment is of chief importance. In estimating the value of any local application or plan of treatment it must always be borne in mind that psoriasis is rarely stationary, but tends to improve or to completely disappear at certain seasons of the year. The value of a remedy can only be determined, therefore, by observation of its effect in a number of cases.



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PSORIASIS DIFFUSA.

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PSORIASIS.

In the local treatment of psoriasis, our aim should be three-fold, viz., to soothe the skin, to soften and remove the scales, and to promote absorption of the infiltrated patches. In no disease of the skin is bathing of more importance than in psoriasis. The Turkish bath fulfils each of the three indications above mentioned, and often does more to improve the general health of the patient than the administration of drugs. When the psoriatic patches are red, itchy and irritable, as they frequently are, the mistake is too often made of giving arsenic internally, and applying stimulating applications to the diseased skin. It is far better, in such cases, to prescribe a daily bath with inunction of cosmoline, or vaseline, until the acute inflammatory symptoms have subsided. Intense itching may be allayed by means of a lotion of carbolic acid (10–15 per cent.) in glycerine. The irritability of the patches being subdued, soap frictions may be added to the bath to remove the accumulated epidermis, although, when the scales are but moderately thick, they are quickly softened and removed by the stimulating application employed to lessen the infiltration of the skin. When in inveterate cases the scales are like plates of horny armor, they need to be softened by painting them with acetic acid and scraping them off with a curette, or by enveloping the limb, or even the body, in a close-fitting garment of vulcanized rubber cloth, worn with the smooth side next to the skin. To the red and thickened patches now exposed may be applied one of numerous stimulating remedies of variable strength. Tar has been most extensively employed, and its most convenient form, the oil of cade, is a serviceable application.

But the use of tar in psoriasis has been completely superseded within the past ten years by the introduction of chrysarobin. This remedy has grown steadily in favor with the profession until it has attained a recognition as one of the foremost agents in the local treatment of various chronic diseases of the skin.

For several years after the introduction of this drug (under the name of chrysophanic acid) it was used in the form of an ointment of varying strength, and scarcely any one who tested its value failed to be struck by its peculiar effect upon the sound skin, and surprised at its beneficial action upon diseased patches. But there were objectionable features connected with its use in the form of an ointment, which could not be overlooked, and these were often so marked that they served in many instances to counterbalance the value of the remedy. In all cases the healthy skin became temporarily discolored, which was not a very serious matter, but at the same time the underclothing of the patient became permanently stained and usually ruined by a single application of the ointment. Furthermore, the effect of the remedy was found to be somewhat different in degree upon different skins, and in some cases a violent dermatitis was occasioned even by the use of mild ointment, and this often proved to be worse than the disease for which it was applied. Under these circumstances many were led to give up the use of the remedy, while a few were prompted to seek a means which would obviate its objectionable qualities without impairing its efficacy in any marked degree. The efforts of the latter have been finally crowned with success, and it may be now asserted that the local effect of chrysarobin can be obtained without danger of its exciting a dermatitis of the healthy skin or causing a discoloration of the patient's clothing.

Various experimenters, both here and in Europe, have adopted different means to obtain this result, until all have arrived at the conclusion that the chrysarobin must be incorporated in some elastic and adhesive varnish.

My first attempts to solve the question led me to the employment of a paste made by mixing the chysarobin powder with a quantity of water. This was applied to the affected skin and covered with flexible collodion, or a little absorbent cotton moistened with the white of an egg, or a piece of gutta percha tissue, the edges of which were glued to the skin by means of chloroform. This plan was effective but troublesome. I also tried chrysarobin sprinkled on plaster, and other devices which I need not mention. Finally I resorted to a mixture of chrysarobin and collodion, which made a neater application, though it lessened somewhat the activity of the remedy. About a year or more ago, having observed the peculiar effect of salicylic acid in softening corns and epidermic tissue in the form of scales, it occurred to me to combine this remedy with the chrysarobin in collodion, and my subsequent use of this pigment or varnish in both private and hospital practice has convinced me that this combination greatly enhances the value of the simple chrysarobin in collodion. It apparently causes it to adhere more firmly to the skin, and to produce a more marked effect upon the diseased patches. The formula which I have employed with the greatest satisfaction, and which at the New York Skin and Cancer Hospital is known as the "Pigmentum Chrysarobini Compositum," is the following:

℞. Chrysarobin,	- - - - -	10 parts.
Salicylic Acid,	- - - - - -	10 "
Ether,	- - - - - -	15 "
Flexible Collodion, to	- - -	100 "

M.

In Europe the mixture of chrysarobin and collodion has been recommended by Sesemann, while gelatine has been employed as a vehicle for the chrysarobin by Unna and Pick. Recently Auspitz has recommended the use of chrysarobin in a solution of gutta-percha. I have used this application in the treatment of a number of cases of psoriasis and it is certainly an elegant and efficacious one. The chloroform has the advantage over ether in dissolving a trifle more of the chrysarobin, but the efficacy of the application would be increased, in my opinion, by the addition of ten per cent. of the salicylic acid, for the reasons which I have already stated. The use of the liquor gutta-perchæ, U. S. P., as a vehicle for the chrysarobin and salicylic acid is well adapted to use in private practice, but the use of collodion as in the formula given above is more desirable in hospital and dispensary practice, as the cost of the latter pigment is one-half that of the former. Of course, it must be carefully kept in a well-corked and preferably in a wide-mouthed bottle. It can be applied to the diseased skin by means of a small stiff paint brush, and should the pigment become slightly thick at any time, it can be made as thin as desirable by the addition of a small quantity of ether. In some cases it is advisable to apply the remedy in the form of a thick varnish, while in other cases, where only a slight effect is required, it is better to apply only a thin coating. For



PSORIASIS MANUM.



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PSORIASIS PEDUM.

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this purpose a larger quantity of ether should be used in the formula given above. Occasionally the pigment produces temporarily a stinging sensation, but this is scarcely worthy of mention when we consider the perfect relief from itching which frequently ensues. The yellow coating upon the skin dries very quickly, and if not disturbed by unusual friction or bathing, it remains upon the skin without incommoding the patient in the slightest degree for several days. It then begins to fall off, and usually requires a renewal. When severe pruritus has been present and is relieved, as is commonly the case upon application of the pigment, a second application should be made as soon as the coating begins to crack or peel, as at this stage the pruritus is very apt to return.

In the local treatment of psoriasis chrysarobin is without doubt a truly great remedy. No one can fail to appreciate and be thankful for the progress of medical science who considers how, less than ten years ago, psoriatic patients were persistently smeared with tar, and often smeared in vain, and appreciates the fact that now it is a comparatively simple matter to cause a speedy disappearance of the scaly patches in nearly every case. And it is another step in advance which has superseded the ointment of chrysarobin by applications of the remedy which do not ruin the clothing and inflame the healthy skin. In the treatment of psoriasis the compound chrysarobin pigment is, in my opinion, the best application which can be employed in at least ninety per cent. of cases, and may be applied to all parts of the body with the exception of the scalp and face. Here, the use of ammoniated mercury ointment, which is of little value when applied to the trunk and extremities, will generally suffice to remove the eruption in a very short time.

Of the internal treatment of psoriasis but little need be said. While in no other affection of the skin has such a wonderful improvement in the method of local treatment taken place of late, our knowledge of the nature and internal treatment of psoriasis has not materially advanced. I have tried antimony, carbonate of ammonia, chrysarobin, and a few other drugs recommended for internal use in this disease, but without observing any marked benefit.

Psoriatic patients are not usually in need of tonics. Some errors in digestion may be discovered and require to be corrected. An alkaline plan of treatment may be called for by the association of the disease with a rheumatic or gouty habit, and should be our chief reliance whenever the patches are hyperæmic and irritable. The acetate or citrate of potassium may be given in from one to two gram doses (fifteen to thirty grains), in a half glass of water, a short time before meals. In chronic cases arsenic is an old, a well-tested and an efficient remedy. It may be given in the form of the liq. potassii arsenitis, the liq. arsenici chloridi, or the so-called Asiatic pills converted into a powder (Piffard).

℞.	Arsenious Acid, - - - -	2 parts.
	Black Pepper, - - - -	18 "
	Sugar of Milk, to - - - -	100 "
M.		

From one to five grains of this powder may be taken with each meal, being sprinkled on

the food in the place of salt, if agreeable to the patient. Before the effect of the arsenic upon the eruption in any given case can be observed, the patches can be usually removed by a resort to the local treatment already described, but the drug will often prove useful in preventing a relapse.

MILIARIA.

Synonyms—Lichen Tropicus—Lichen Æstivus—Prickly Heat.

Miliaria is a fine papular or papulo-vesicular eruption, which is very common, not only in the tropics but in temperate climates, especially during the excessive heat of midsummer. The lesions consist of minute conical elevations of the skin, closely aggregated, and of a bright red hue. When fully developed, the summit of each lesion presents a whitish appearance from the effusion of the minutest drop of serum. The eruption is generally limited to a portion of the trunk, but may appear upon the face, neck and extremities. Only in exceptional instances is the eruption general. The skin is usually bathed in perspiration, and there is always present a peculiarly annoying sensation which has given to the affection its common name of "prickly heat." The adjectives *alba* and *rubra* are sometimes employed in connection with the term Miliaria, to indicate the degree of congestion of the skin and resulting color of the eruption.

The cause of Miliaria is to be found in a combination of agencies, which conspire to produce an undue congestion of the skin. Hot weather, excess of clothing, and vigorous exercise commonly evoke the eruption. It is most common among children, especially such as are debilitated and poorly cared for. Among adults it is not infrequent, and is most apt to affect those whose vitality is lowered by dissipation of various kinds. The free use of alcoholic stimulants in hot weather often induces the eruption, and aggravates it when resulting from other causes. Miliaria is especially common among those who have a fair complexion and thin delicate skin.

Diagnosis. The eruption is generally recognized without difficulty when existing alone, but as not infrequently occurs in connection with a papular eczema, a mistake in diagnosis may now and then occur. The larger size of the papules in eczema, their more scattered distribution, and the itching which attends them and results in the excoriation of their summits, will serve as a distinctive feature. Chicken pox and German measles, occurring in hot weather, have been mistaken for prickly heat, but no careful physician ought to be led into such an error.

Treatment. The chief aim in the treatment of Miliaria is to keep the skin as cool as possible. To accomplish this end, the exciting causes already mentioned must be avoided. Work and worry should be reduced to a minimum, and one or more cool baths taken daily. Rest, light clothing, and frequent draughts of lemonade, or some other cooling beverage, will speedily check the eruption in the case of adults. In children the affection is apt to be more troublesome, and sometimes persists for weeks in a more or less aggravated form. The



PITYRIASIS RUBRA.



LICHEN PLANUS.

remedies which I have generally advised, and found useful, are two which are commonly found in every household, viz: cream of tartar internally, and starch powder locally. A teaspoonful of the cream of tartar may be stirred up in a glass of water, and a few swallows taken every half hour. Locally, an absorbent powder will prove far more agreeable than an ointment.

LICHEN PLANUS.

Synonym—Lichen Ruber Planus.

Lichen is a name which was applied by the older dermatologists to all diseases of the skin, the lesions of which consist of persistent papules. Several varieties of lichen are described, but as a more careful study of the natural history of skin diseases has shown that these are not varieties of one disease, but papular stages or forms of widely different diseases, most of them have become obsolete as forms of lichen, being known at present under different and more appropriate names. Lichen simplex, according to many writers, is nothing more nor less than a papular form of eczema (See plate of E. *papulosum*). Lichen lividus is Purpura papulosa; Lichen urticatus is Urticaria papulosa; while Lichen syphiliticus is Syphiloderma papulosum, a name expressing the nature of the disease, which is, of course, of vastly more importance than the form and appearance of cutaneous lesion. There still occur, however, papular eruptions which cannot be considered as mere papular forms of any disease otherwise named, and to such the term "Lichen" is justly applied.

Lichen planus consists in an eruption of peculiar papules, which may be disseminated or aggregated, and either occupy a limited region, or extend over a large extent of the general surface of the skin. The chief peculiarity of the papules, and one which gives rise to the name, is their flattened summit. They are but slightly elevated, and though rising abruptly from the healthy skin, they do not possess the conical or rounded summit of ordinary papules, but appear as though they had been shaved off or pressed down. The summit is smooth and horny, and sometimes presents a glistening appearance. Usually a punctate depression, or umbilication, is seen in the centre of this flattened surface. The base of the papule is often angular in its outline. In size, the papules vary greatly in different cases, and slightly upon different portions of the body. They are usually of the size of a pin's head, but may be considerably larger. As in the case of the papular syphilide, both a miliary and a lenticular form of Lichen planus may occur. The color is a pale yellowish red when the papules are small, and "dull crimson," or violaceous, when they are larger, the centre being somewhat lighter than the rim of the papule. The papules may be regularly disseminated over a given surface, or strewn in groups, even when not coalescing. The papules, when once developed, persist as such, never evincing the slightest tendency to vesiculation or pustulation. They do not increase in size, and patches are formed by the springing up of new papules among the older ones. The isolated papules are not scaly; but when they become aggregated, they lose their peculiarities of form and appearance, and irregular patches of thickened skin result,

with a dry, harsh, horny surface, which to the touch feels like a file, or even a nutmeg-grater. At the border of such a patch the typical papules may sometimes be observed. The disease is attended with a certain amount of itching in every case, and the utmost distress is sometimes occasioned by this symptom. It develops with variable rapidity, requiring but a few weeks, in some cases, to produce an extensive eruption. Limited patches, on the other hand, often remain for months without change. The disease is chronic in most cases, and shows little disposition to yield readily to treatment. The anterior surface of the fore-arm and wrist is the most favorite locality.

The cause of the affection is obscure. It is certain, however, that those affected by it are far from being in perfect health. The debilitated condition of the system in this disease is more noticeable than in eczema, and far more so than in psoriasis. The eruption may occur in either sex, in the young as well as the old, and upon almost any portion of the body. It occurs far more frequently in females, according to my experience, and usually in middle life.

Diagnosis. The diagnosis of Lichen planus is not generally difficult for one who has had the opportunity of seeing a well-marked case of the affection. But, as the disease is comparatively rare, the reader may be called upon to diagnose and treat a case without this advantage. If the case is typical it will correspond with the description given, and with that of no other disease. The papular syphilide ought not to be mistaken for it, owing to the regular distribution of papules over the body, and the absence of itching in the former affection. The papules of eczema are itchy, often affect a limited region, may be both disseminate and grouped, and resemble Lichen planus at first glance. They are brighter in color, however, conical in form, and never present the angular base, flattened summit, and central depression, which characterize the papules of the latter affection.

Treatment. The general health in many cases being impaired in a greater or less degree, the strictest attention should be paid to dietary or hygienic measures. The digestive organs must be kept in as normal a condition as possible, and the most nourishing and easily digested food prescribed. Of internal remedies, the alkaline diuretics seem to be productive of the best results by reeliving the cutaneous congestion. In many cases of this disease, and indeed in any case of chronic skin disease where an imperfect oxygenation of the blood exists, it is advisable to administer a gram (fifteen grains) or more of chlorate of potassium, fifteen minutes after each meal, and twenty drops of dilute nitric acid in water, fifteen minutes later. Wilson recommends quinine, nitro-muriatic acid and chalybeates.

Unna treats lichen planus mainly by the application of the following ointment.

℞	Corrosive sublimate, - - - -	1 part.
	Carbolic Acid, - - - - -	20 parts.
	Benzoated zinc ointment to - -	500 "

M.

This is to be rubbed into the affected skin every night and morning, the patient remaining in bed A cure may be speedily hoped for if the eruption is not of long standing.





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LICHEN RUBER.

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The best local treatment which I have used is the application of carbolic acid in full strength to the patches and to the scattered lesions. This lessens the hyperæmia and prominence of the papules, and soon converts them into dull, red spots, which slowly disappear.

LICHEN RUBER.

Lichen ruber was first recognized as a distinct affection of the skin by Hebra, who selected the name on account of the development of papules, and the dull red hue which they present when not whitened by a slight desquamation of the epidermis. The disease, as described by Hebra, is one of the rarest of cutaneous affections.

A case reported by Dr. White, of Boston, a case of Dr. Sherwell, of Brooklyn, illustrated in the first edition of this work, a case under the care of Dr. McMaster, of New York, and the subject of the accompanying plate, are among the few cases of true lichen ruber which have been recognized in this country. A number of cases of extensive lichen planus, involving both trunk and extremities I have seen, but these seem to me to differ in their nature from the lichen ruber of the Germans; and from my clinical study of cases at home and abroad, I am disposed to differ with the majority of dermatologists who associate lichen planus described first by Wilson, and later by other English dermatologists, with the lichen ruber of Hebra and other German writers.

Piffard is inclined to believe that the affections are distinct, and writes as follows: "This view, that L. *planus* and *ruber* are identical, supported by such eminent authority, is very plausible, and might be accepted as definite, were it not for certain prominent facts which its advocates fail to satisfactorily explain. In the first place, Wilson observed fifty cases of L. *planus* characterized by umbilicated papules and pigment stains, most of which pursued a benign course. Hebra observed fourteen cases without umbilicated papules or stains, most of which terminated fatally. It is hardly supposable that a careful observer like Hebra would have overlooked the umbilications, if present, or that Wilson should have met with mild cases only, and Hebra with severe ones. Now, subsequent to Wilson's publication, Hebra and Kaposi have observed a number of examples of a benign, umbilicated, papular eruption, which they have included under their old name of '*ruber*.' It does not follow, however, that because they have done this, that the two are the same disease. Neumann, in 1868, described the microscopical appearance of the original L. *ruber*, and Biesiadecki, in 1872, those of the umbilicated eruption. As will be seen later, these differ widely. Lastly, no one, so far as I am aware, has seen the transition of a typical L. *planus* into L. *ruber*." The latest microscopical investigations into the nature of the affections by A. R. Robinson tend to show this non-identity. After a careful comparison of the symptoms, histology, prognosis and treatment of the two forms of eruption, this writer concludes that lichen ruber and lichen planus are two entirely distinct diseases of the skin, and that the grounds for regarding them as but two forms of the same disease are altogether untenable.

In many respects lichen ruber resembles lichen planus, and it is only necessary to refer

briefly to certain points of difference, without discussing the question as to whether the two are distinct affections or forms of the same disease. The papules at the outset are of a brighter red color, conical in shape, and surmounted by a thin, adherent scale. When aggregated, as is usually the case, the same roughened surface is produced as in lichen planus.

The eruption affects no particular locality, but tends to become general. The nails suffer in a characteristic manner, becoming thickened, with an uneven surface and a broken extremity. This condition, together with the infiltration of the skin, interferes considerably with the free use of the hands and feet. When the disease has existed for some time, the patient tends to become emaciated, and in time the strength fails, and death ensues. The different prognosis given by different writers results evidently from the fact that some confound the general eruption of lichen planus with the true lichen ruber. Whereas, a cure may confidently be expected in the one case, it can only be hoped for in the other.

As to the pathological nature of lichen ruber, Auspitz denies that it is an inflammatory affection, and claims that the lesions result from a hypertrophic growth of the corneous layer. In this view he is supported by Robinson, who states that the primary and principal changes in lichen ruber occur in the corneous layer and are never the result of an inflammation. He says: "From a clinical study of the papule there is also nothing in its mode of origin or appearance which makes it probable that the disease is an inflammatory one. The redness present is principally a hyperæmic redness, as shown by the absence of an inflammatory areola, there is no pus-formation, no abscess, no vesicles, no erosion, no exudation upon the free surface, no inflammatory infiltration into the cutis, no pain; no increase of temperature, judging by the feel—in other words, the essential clinical characters of an inflammation are absent."

TREATMENT. In lichen ruber, a long continued course of arsenic is advised by Hebra, while the effect of the linseed oil treatment of Dr. Sherwell, in the case illustrated in the first edition of this work, would suggest its trial in other cases. Locally, baths and other soothing measures are called for when the amount of congestion is extreme.

LICHEN SCROFULOSUS.

This is an affection which is rarely met with in this country. The eruption is a chronic one, and is characterized by groups of small, pale red and scaly papules, which usually are located upon the trunk and are not itchy. The affection is most frequently observed in boys, and as the name implies, is commonly associated with marked evidences of a scrofulous diathesis. Hebra, who first described the disease, treated all of the cases successfully by cod liver oil, internally and externally.

PRURIGO.

This is another affection which is rare in this country, though comparatively common in certain parts of Europe. The name Prurigo is often applied to certain itchy affections which



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HERPES FACIALIS.

ARTOTYPE E. BIERSTADT N. Y.

were classed under this head by Willan and later English dermatologists, but it should be restricted to a peculiar and extremely chronic eruption which affects chiefly the extensor surfaces of the extremities, and is accompanied by the most intense pruritus.

The affection is never hereditary nor contagious. It is most likely to affect weakly or poorly nourished children, and especially those whose parents have shown evidences of tuberculosis. It is rare to find more than one child in a family suffering from this disease.

Diagnosis. Prurigo is so rare in this country that only a few undoubted cases have been reported. In my own experience I have never met with a typical case, such as may be seen daily in the Vienna clinics, but have treated several which were of a mild type of the affection. Many experienced dermatologists in this country are disposed to dispute the correctness of the diagnosis of prurigo, if the well-marked symptoms of the disease, as they have studied it abroad, are not present. But it must be borne in mind that only the most striking cases of prurigo *agria* are exhibited in the Vienna clinics, and that the mild form of the disease does not present the well-marked thickening and pigmentation of skin, with the accompanying buboes, which are characteristic of the severer form of the disease. It appears to me quite probable, therefore, that many mild cases of prurigo are overlooked in this country, cases which could pass readily as prurigo *mitis* in Germany. In its incipient stage the affection might easily be mistaken for an urticaria of the extremities, as wheals and excoriations are the only lesions. But the persistence of the disease for months and years in spite of ordinary treatment and their characteristic localization, ought in time to reveal the true nature of the disease. The artificial eczema, so commonly present in severe prurigo, tends usually to obscure the diagnosis, but here again the seat and persistence of the eruption is a guide. While eczema is especially apt to occur upon the flexor aspect of the joints, where the skin is thin and delicate, prurigo, of however intense a grade, invariably leaves these parts unaffected. The eruption of scabies often bears a strong resemblance to mild prurigo upon the extremities; but while the former affection is most noticeable as a rule upon the hands and certain portions of the trunk, the latter affection is most marked upon the extremities.

Treatment. There are few affections of the skin and none of the inflammatory group which are more intractable than prurigo. Taken at the outset, a favorable progress may be made, but when the disease has existed for a long time its cure is by no means an easy matter, and under the most favorable circumstances the treatment must be continued for a year or more. In some cases relapses are inevitable after an apparent cure, while in others the most that can be hoped for is an alleviation of the patient's misery. Often the disease persists throughout the patient's life, which is very apt to be shortened by the suffering which it entails.

The first aim in treatment will usually be the cure of the artificial eczema which is so often present, and to effect this the applications already recommended in connection with eczema may be employed. The next aim will be to lessen the infiltration of the skin, and thereby relieve the pruritus which is so harassing to the patient. The use of tar is advisable

to effect this end, or if the eczema has been completely subdued, Vleminckx solution, as recommended by Hebra, may be rubbed over the thickened skin and the patient placed for an hour in a warm bath. This may be repeated daily for several weeks, and then continued at intervals. After the bath the body should be anointed with lard or petroleum to counteract the caustic effect of the lime in the solution mentioned, which is prepared according to the following formula.

℞ Quicklime, - - - - - 10 parts.
Sublimed sulphur, - - - - 20 "
Water to - - - - - - 200 "
Boil to 100 parts and filter.
M.

The general health of the patient must be improved in every possible way.

HERPES.

Herpes, a term old enough to have been used by Hippocrates, has been applied, by writers in times past, to numerous and varied affections. Even at the present time there are some who apply it, with varying adjectives, to both vesicular and bullous, as well as to parasitic, affections. The tendency of modern dermatology has been toward a limited application of the term to acute affections, characterized by the development of vesicles in groups. From a clinical point of view, I deem it advisable to regard zoster and erythema bullosum (hydroa), two vesicular or vesiculo-bullous affections, as distinct from the ordinary herpes, so frequently met with upon the lips and prepuce.

Herpes may be defined as an acute inflamatory affection, consisting of one or more groups of vesicles, occurring on the face or external genitals, and in the former location accompanied frequently by fever. This definition limits the application of the term to two comparatively insignificant forms of vesicular eruption, called in accordance with the regions affected, H. *facialis* and H. *progenitalis*.

Herpes *facialis*, in its most frequent form, is met with upon the margin of the lips, constituting what is commonly termed a cold sore (H. *labialis*). The vesicles, in such a case, are not usually distinct, and the person affected may note but one or more slight swellings of the lip, attended by an unpleasant burning sensation, and the rapid development of a thin crust or scab. The affection may result from no apparent cause, but the patient is frequently conscious of having "caught a cold." The eruption often extends from the vermilion border of the lip upon the cutaneous surface, and groups of vesicles are seen upon the side of the nose and cheeks. When developed to this extent, the eruption, particularly in children, is apt to be associated with more or less fever. In rare instances, the forehead, eyelids, ears, as well as the mucous surface of the tongue and buccal cavity become the seat of the eruption. However numerous may be the group of vesicles, they are usually developed simultaneously, the affection differing in this respect from zoster and hydroa. The vesicles develop upon an erythematous

base, are rounded and tense, and though larger than the vesicles of eczema, are not equal in size to those seen in cases of erythema bullosum. An uncomfortable, burning sensation accompanies their outbreak, but subsides as soon as the eruption has attained its maximum development. There is never any of the neuralgic pain which is so common a feature of zoster. The vesicles rarely rupture when protected from external irritation, but dry speedily, in the course of a week, to thin, dark crusts, which fall and leave a slightly reddened surface. In certain patients, there is a marked tendency of the eruption to recur at intervals.

The etiology of facial herpes is not thoroughly understood. That it is frequently due to reflex nervous irritation is quite apparent from the fact of its common occurrence in the early stage of pneumonia, and in the urethral fever following internal urethrotomy. The old idea that its occurrence is a favorable prognostic sign, appears to have no scientific basis.

Herpes *progenitalis* consists in the eruption of one or two small groups of vesicles on an erythematous base, and is unaccompanied by fever. In the male the sheath of the penis, the prepuce or the glans may be its seat, while in the female it may be found upon the labia and pubes. When upon a cutaneous surface, it is usually recognized without difficulty, but upon the mucous surface of the genitalia the vesicles become quickly macerated, and a mere erosion results. Herpes of the internal surface of the prepuce is a quite common affection, and one which is frequently regarded by both patient and physician as being of venereal origin. This may be the case, as the irritation of the sexual act may evoke the eruption, especially in one predisposed to herpes of this part. Moreover, it may be the result of direct contagion, since the serum contained in the vesicles has been successfully inoculated. But usually herpes of the prepuce is an innocent affair. The affection frequently occurs in those who have never had any venereal disease, nor indulged in impure intercourse. The vesicles are usually accompanied by slight soreness, and in some cases by a decided pruritus. If the part is in a cleanly condition, the eruption runs a rapid course, and disappears in four or five days. A tendency to recur is noted in certain patients, as was seen in the case of herpes of the face. Those who have suffered from venereal disease are especially liable to recurrent attacks, some patients suffering in this way for years. Shortly after the healing of a chancroid, herpes is prone to occur, in which case it is very apt to be erroneously regarded as a relapse, or a fresh infection.

In private practice progenital herpes is usually observed in the male, but the affection is by no means confined to either sex, and among prostitutes official examinations have demonstrated its frequent occurrence.

Treatment. The treatment of facial herpes is mainly expectant. A dusting powder is the best external application when the eruption is extensive. Spirit of camphor, or some similar stimulating liquid may be applied frequently to an incipient "cold sore" in the hope of checking its development. If it fails, as it generally does, cold cream may be applied with good effect, for the purpose of softening the crust which forms.

The treatment of progenital herpes is simple. Keep the part clean and dry.

ZOSTER.

Synonyms—Herpes Zoster—Shingles.

The name Herpes has been used by dermatological writers as a generic term to include all eruptions in which groups of vesicles are present. This use of the term associates Zoster with Herpes of the lips and prepuce, and with other rarer affections, which differ widely in their clinical features. It is advisable, therefore, to class Zoster as an affection *sui generis*. The characteristics which serve to distinguish Zoster from Herpes may be concisely stated as follows. Zoster is almost invariably unilateral, and rarely occurs more than once in a lifetime. It presents large isolated patches of tense vesicles, seated on a highly congested base, and usually following the course of a cutaneous nerve for a considerable distance. It is associated with a neuralgic pain and a lancinating sensation in the affected skin. It usually runs a regular course of from two to four weeks and occasionally leaves cicatrices. Herpes is usually bilateral if at all extensive, and may be tolerably symmetrical. It occurs many times in the same patient. There is no tendency to distribution along the course of a single nerve for any distance. The pain is not of a neuralgic character. There is a great variation in the severity and course of the affection, and no scars are left.

Zoster may be defined, therefore, as a vesicular eruption, remarkable for its unilateral occurrence and its limitation to the cutaneous distribution of one or more nerves. Though not a very common affection it is one easily recognized, and is generally known among the laity by the name of "shingles." The eruption usually occurs upon one side of the chest or waist, forming a portion of a girdle, from which circumstance is derived the name. It may also occur upon the head or limbs, following in every instance the course of a nerve. It is only in extremely rare cases that the eruption is bilateral. The sexes are about equally liable to attacks and the eruption occurs at almost any age. In children it is annoying while it lasts, but no neuralgia is left behind, as is often the case in the aged.

The eruption usually begins after a short febrile attack, appearing in the form of one or more patches of intense hyperæmia. A pricking or tingling sensation sometimes calls the patient's attention to the part before the vesicles have appeared, but usually the patch when first seen is dotted with pearly vesicles which rapidly attain the size of hemp-seed. Frequently the vesicles vary in size upon different patches in the same case, the least developed patch bearing pin-head sized vesicles, while those upon another patch have reached the size of small peas and are distended by a clear, yellowish serum. The vesicles usually reach their maximum development in four days, remain tense for a day or more, and then gradually flatten. The inflammatory base changes in color from a bright scarlet to a dull crimson, and the amber-hued contents of the vesicles become cloudy and even pustular. In the second week, blackish crusts or scabs form, which gradually fall during the third or fourth week. The eruption may fail to reach its full development and begin drying on the second or third day.

There are, strictly speaking, no varieties of Zoster, the same characteristics appearing





...TY [illegible], BY E. G. TREAT, N. Y.

ZOSTER FRONTALIS.

ZOSTER LUMBO-FEMORALIS.

ARTOTYPE E. BIERSTADT, N. Y.

whenever the eruption may be limited. Regional adjectives are conveniently used. such as *Z. capitis*, *Z. faciei*, *Z. nuchæ*, *Z. brachialis*, *Z. pectoralis*, *Z. abdominalis*, *Z. lumbalis*, and *Z. femoralis*. The term Zoster bullosa might be applied to one of the cases illustrated, in which we find an accidental elevation of the epidermis by a rapid exudation of serum and a resulting confluence of the vesicles.

The cause of Zoster is to be found in some abnormal condition of the nervous system in general, or in some injury or disease of the nerve supplying the affected portion of skin. The occurrence of the disease is usually a surprise, and no conditions exist which would lead one to anticipate an attack.

Diagnosis. A typical Zoster occurring upon the trunk is easily recognized, but when the forehead, scalp or one of the extremities is the seat of the eruption, a mistake is very apt to be made unless great care is exercised. If the case is seen when the disease is at its height, the grouping of the vesicles and the distribution of patches along the course of a nerve serve as a guide. But frequently the case is not seen until the lesions have dried into blackish crusts or have been disguised by some local application, and in such a case the suddenness of the attack, the course of the disease and the accompanying neuralgic pain are points which must be taken as a basis of diagnosis.

Treatment. Zoster will always run its course without special treatment. It is useless to attempt to abort the vesicles with nitrate of silver or blisters. The part should be protected against the friction of the clothing by a soft linen cloth, and starch powder may be dusted on to absorb the fluid when the vesicles rupture. When severe pain is present, fifty centigrams of sulphate of morphia may be added to fifty grams of elastic colodion (five grains to the ounce) and painted over the patches. The application of the oil of peppermint, as recommended by Meredith, to lessen the pain, has, in my experience, only served to aggravate the suffering of the patient. Internally, the phosphide of zinc, two centigrams (one-third of a grain) every three hours, has been praised. As the course of this disease is variable, it is difficult to judge of the effect of an internal remedy except from observation of numerous cases.

PEMPHIGUS.

The term pemphigus was formerly applied to every eruption of bullæ from whatever cause, and affections of widely different nature, and variable prognosis were accordingly grouped under one head. Some of these forms of bullous eruption are now recognized as manifestations of syphilis and leprosy. Others are manifestly the direct effect of poisoning by certain drugs and other ephemeral causes. A peculiar class of cases has been associated with erythema multiforme, and these answer to the description already given of erythema bullosum or the hydroa of some writers. Still the term pemphigus is used in a wide sense, and further study into the nature of bullous eruptions will be necessary before we can limit the application of the term to a definite disease. At present we must be content to apply it

to various affections which are undoubtedly distinct in their etiology, but which are characterized by the repeated outbreak of blebs of varying size and character.

The lesions of pemphigus may appear as tense hemispherical bullæ from the size of a pea to that of an egg, or as flattened and flabby blisters of circular or irregular shape, often involving considerable patches of epidermis. They sometimes rise abruptly from the normal skin and sometimes are surrounded by a narrow red areola. The serous contents of the lesions are alkaline in reaction and contain albumen. They are at first clear and translucent, but gradually become turbid or even purulent and usually dry into thin, brownish crusts. A certain amount of fever may accompany the outbreak of the eruption, which may be attended by more or less pruritus.

Three varieties of pemphigus are commonly described. They are acute pemphigus, chronic pemphigus, and a peculiar form known as pemphigus foliaceus. The acute pemphigus, so-called, is usually the bullous form of erythema multiforme, and has little or nothing in common with the chronic forms of the disease which alone I am disposed to regard as true pemphigus. Bullous eruptions in new-born children which have been described as pemphigus neonatorum, I have never had the opportunity of observing, with the exception of those of an undoubted syphilitic character, which certainly ought not to be called pemphigus. There remain then but two forms of the disease to be described, the ordinary chronic form (pemphigus vulgaris) and the extraordinary exfoliative form (pemphigus foliaceus).

In pemphigus vulgaris the lesions are scattered over a limited portion or the whole extent of the body. In some cases the repeated outbreaks are accompanied by fever, while in others there is no perceptible rise in temperature or any notable general symptoms. The bullæ are tense at the outset, but pressure or friction soon breaks the epidermis and allows a portion of the contained serum to escape. If the epidermis is forcibly removed a red and moist surface is exposed which becomes quickly covered by a dry crust. This falls without leaving any cicatrix, but pigmentation of the spot frequently remains for months, and in some cases the whole skin becomes thickened and dark from the recurrence of the lesions. In mild cases the skin remains for some time free from lesions, but in other cases a new crop appears before the last one has had time to run its course, and the patient is kept in constant misery Sometimes the bullæ coalesce, and upon removal of the epidermis large excoriated patches are left, which become coated with a diphtheritic deposit.

In pemphigus foliaceus we have generally a severe case of ordinary pemphigus in which no tense bullæ form, but in which the epidermis becomes raised in masses by a serous discharge and dries in large whitish flakes, somewhat resembling mealy pie-crust. The disease usually progresses from bad to worse, the desquamation increasing and painful fissures forming which renders difficult all movement on the part of the bed-ridden patient. While in young persons recovery may be hoped for with proper treatment, in adults and especially in the aged, a fatal result is unfortunately the usual termination.

Diagnosis. The recognition of true pemphigus depends upon a consideration of the



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PEMPHIGUS

AUTOTYPE BY TREAT, N. Y.

course of the disease rather than upon the demonstration of a few bullæ. It is highly important to distinguish the bullous variety of erythema multiforme from pemphigus, as the prognosis is quite different in the two affections. The distinctive features have already been given. It is not so important to distinguish a severe case of dermatitis exfoliativa from pemphigus foliaceus, and far more difficult a task. Indeed, there are some cases where differential diagnosis is almost impossible, and the similarity or possible identity of the two diseases has already been mentioned in connection with the former affection.

TREATMENT. Pemphigus is a disease which, resulting from an uncertain cause, is only amenable to treatment in a slight degree. Palliative measures will do much to relieve the suffering of the patient in all cases, but seldom can a cure of true chronic pemphigus be confidently expected. Of internal remedies arsenic has been most highly praised, and certainly in no other affection of the skin can the curative effect of this powerful drug be more brilliantly displayed. Still the remedy is by no means a specific, and in some cases it fails entirely to check or modify the recurring eruptions of bullæ. In one case in which it appeared to have little or no effect I found chaulmoogra oil to be a preferable remedy, and from the undoubted value of this latter drug in leprosy and other chronic skin diseases, I should be inclined to expect good results from its use in pemphigus.

The local treatment of a case consists in the constant application of soothing or drying applications. From the known property of bismuth to check the discharge from a raw cutaneous surface, no better local remedy can be found. At the beginning of an attack or exacerbation of the disease when the bullæ are full and tense it is advisable to prick them carefully and to cover the collapsed epidermis with powdered bismuth and absorbent cotton. When raw surfaces are present they should be covered with cloths spread thickly with the following ointment.

℞. Subnitrate of Bismuth, - - - 15 parts.
Oxide of Zinc, - - - - 15 "
Benzoated Lard, - - - to 100 "
M.

In the foliaceous form it is often necessary to keep the patient oiled from head to foot to lessen the cracking of the inflamed skin.

ACNE.

The term Acne has been applied by some writers to nearly all affections of the sebaceous glands, whether inflammatory or not, and in this broad application has included comedo, milium, seborrhœa and molluscum. These affections depend upon pathological conditions which are not essential elements of acne, which is a purely inflammatory affection. It is a fact, however, that excessive secretion of the glands and accumulation of sebaceous matter in the ducts are conditions which very frequently exist in connection with follicular inflammation.

Acne, even in the restricted sense in which the term is now used, may be regarded as

the most common of all cutaneous affections. It may be asserted that the majority of adults, male or female, have not passed through the period of adolescence without having at least a mild form of acne upon either the face or upper portion of the back. These are the regions upon which the affection is most apt to appear. In cases where the face is affected in a marked degree, the back, shoulders and breast may be slightly affected, or remain perfectly free; while, on the other hand, in cases where the back is covered with lesions of acne, the face may be nearly or wholly exempt. The pustules of secondary syphilis are usually disseminated over the greater portion of the body, and are sometimes erroneously termed Acne *syphilitica*. These are not true acne pustules, however, and should be spoken of as the pustular syphilide or syphiloderm. Other eruptions of pustules occurring on various portions of the body result from the ingestion of certain drugs, or from certain forms of external irritation. These again are not true acne, even though produced by follicular inflammation. They differ in their causation, run a different course, and never demand the same treatment as does acne. The affection which has been called Acne Rosacea is also of distinct nature and pathology, as will be seen in the description of that disease.

The lesions of acne are either papular, pustular or tubercular in character, and often these three varieties are present in a given case. They are scattered over certain limited portions, and show no tendency to grouping or regularity of distribution. They vary from a conical elevation of the size of a pin-head to a flattened tumor as large as a bean, having the character of a superficial abscess. Their color is a bright red in patients with an active circulation, but in lymphatic subjects with a thick, pasty skin, the follicular inflammation is less acute in character, and the lesions present a duller hue.

For practical purposes the only necessary division of acne is into two varieties, viz: Acne *vulgaris* and Acne *indurata*. The former, or common form of the affection, is so well known as to require no detailed description. It appears in one patient upon the forehead or cheek in the form of a few small red papules or "blotches," which may disappear in a week and return when the same dietary error, menstrual irregularity or other exciting cause is repeated. In another patient the papules resulting from simple follicular congestion may suppurate and form pustules. These may increase in number through new ones coming faster than the old ones disappear. Month after month the skin becomes more and more thickened by the products of inflammation; soaps and ointments, lotions and balms, are used by the patient with no perceptible effect, and finally the disease reaches the chronic and disfiguring stage which is represented in the illustration. In time the disease disappears, even without treatment, as it is rarely met with in middle life, but often deep pits remain on the site of former pustules, and resemble the marks left by variola. In acne indurata a number of hard, subcutaneous nodules can be seen and more readily felt upon the face and neck. The skin over these little tumors is sometimes unchanged in color, but as the pus forms around the deep-seated sebaceous mass which causes the induration, the skin becomes reddened, and a small abscess rather than a pustule is formed. This variety of acne is most common in lymphatic subjects.

ACNE.

Acne is an affection which is never met with in childhood, but which usually makes its first appearance at the period of puberty, and tends to disappear spontaneously before the age of twenty-five. It is only in exceptional cases that it is met with later in life. It is common in both sexes, and the tendency to the eruption is frequently found to be hereditary. When this is not the case, it is often difficult to explain why the eruption should occur in certain young people and not in others. It cannot be wholly attributed to indigestion, sexual peculiarities or local irritation, since similar conditions frequently exist without giving rise to acne, while on the other hand, the eruption frequently occurs in those who are apparently enjoying the most perfect health. Although the peculiar disposition of the sebaceous glands of certain young people to become inflamed cannot be satisfactorily accounted for, it is certain that there are many exciting causes of the disease, or conditions which tend to aggravate it, and a knowledge of these is of the highest importance in the treatment of a case.

External agencies have very little to do with the causation of ordinary acne. While it is true that the inunction of tar often tends to plug the ducts of certain follicles and thereby cause an inflammation, there is no reason to believe that dust and dirt allowed to collect upon the skin has any similar effect. Indeed it is notable that many who have the least acquaintance with soap and water present a smooth skin and a fair complexion which many of a more cleanly class would give a fortune to possess. Too frequent bathing, on the other hand, is perhaps the most frequent of the external causes of acne, and those who are unduly addicted to shower baths and coarse towelling are most likely to keep some of their sebaceous glands in a state of constant inflammation.

The use of face powders and cosmetics of various kinds, however useless they may be for the purpose of beautifying the skin, have never been the cause of acne, so far as my experience goes. Nor is a poor quality of soap liable to cause acne, or injure the skin to the extent one might infer after reading the advertisements of various manufacturers of this article. In short, it may be asserted that the causes of ordinary acne, as far as known, are chiefly, if not entirely, of internal origin.

The relation of acne to the use and abuse of the sexual functions, is a subject which has not been studied with the requisite amount of caution, and many statements have been made by writers which are not easily verified. While some claim that masturbation and venereal excess is a prolific cause of acne, others assert that continence in young people is responsible for the eruption in many cases. It is certain that both views cannot be correct, and my own experience leads me to side with those who deny that either habit is an etiological factor of any great importance.

The aggravation of an existing acne in the case of females during menstruation, or, as more commonly happens, just before this period, is a fact which could hardly escape the notice of the most careless observer. The general vascular tension which accompanies or precedes this physiological function naturally induces an inflammation of the facial follicles

when a predisposition to acne exists, and in most young women suffering from acne, a fresh crop of papules may be looked for at this time. But this happens in the case of those whose menstruation is normal in every respect, and not with any special frequency among those who are subject to dysmenorrhœa. Acne is common among women, too, who suffer from uterine disease, and while it is quite probable that the relation of cause and effect may exist in these cases, I must confess that it has yet to be clearly demonstrated.

In irritation of the gastro intestinal tract will be found, I think, the most common of the exciting causes of acne. The sympathy existing between the stomach and the face is so intimate that a hearty meal, a glass of wine, or a hot drink of any kind will immediately cause congestion of the latter, and when the glands are obstructed or already inflamed, an aggravation of the acne is inevitable. Acne, like urticaria, is often the direct effect of certain articles of food, *e. g.* buckwheat cakes, pastry or rich gravies, a fact of which the patient soon becomes conscious ; and when no article of diet appears to be responsible for the eruption, the physician may readily discover that gastric catarrh, hepatic torpor and constipation are important etiological factors.

Diagnosis. Acne is so frequently associated with comedo that some writers class them together as varieties of the same disease. But in comedo we have simply a distension of the sebaceous duct and gland without inflammation, which latter is the essential element of acne. This distinction is in accordance with the classification we have adopted, but is a matter of little importance from a practical point of view. The association of comedos with acne lesions often aids in the diagnosis of acne from certain other affections which bear a certain resemblance, but which do not involve especially the sebaceous glands. Hence whenever the diagnosis of a case is doubtful and acne is suspected, it is highly important to note the condition of the glands in the neighborhood. For instance, a recent pustular syphilide, with a few scattered lesions on face and shoulders, might be mistaken for pustular acne, but if upon examination it was found that the glands of the affected skin were in a perfectly normal condition, neither inflamed nor presenting numerous black specks at the follicular openings, the diagnosis of acne would necessarily be excluded. On the other hand, it would be quite possible for the lesions of acne and syphilis to co-exist upon the face and shoulders of a patient ; and, in such a case, the more important affection might be overlooked and left untreated. The color of the lesions might lead to their recognition as separate affections, but the most trustworthy diagnostic point would be found in the general distribution of syphilitic pustules over the trunk and extremities, and the limitation of acne lesions to the face and shoulders.

Acne and rosacea have long been classed together by writers, and only recently have they been shown to be distinct affections, the one inflammatory and the other hypertrophic in character. Nevertheless they are frequently observed to co-exist, and in certain cases it is almost impossible to say whether the case should be classed as acne or as rosacea, the distinctive characteristics of each affection being present. Typical cases may be recognized by the following features : while acne usually occurs in youth, affects the whole of the face and

often the chest and back, and is generally associated with comedos, rosacea occurs in adult life, is limited to the middle third of the face, and contrasts strongly with the skin of the remaining portion of the face, the follicles of which are always in a normal condition.

TREATMENT. There are certain affections of the skin in which a routine plan of treatment is permissible. The remedy which cures one case will produce the same result in every other case. But acne is not one of these affections. Indeed, we rarely meet with two successive cases which demand the same method of treatment, and success in the management of this common affection will usually depend upon a judicious adaptation of our therapeutic resources to the requirements of each case. While some patients demand nothing but local measures, others cannot be cured without resorting to general treatment, and in a certain proportion of cases, the sulphur and corrosive sublimate lotions upon which so many physicians depend, will be found of no particular value whatever, and sometimes prove positively harmful. My own experience in the treatment of acne has led me during the past few years to rely more upon dietary and hygienic treatment, and less upon the application of local stimulating applications.

From a therapeutic standpoint, cases of acne may be conveniently divided into two classes. In one, the sebaceous element is the most prominent. In the other, the glandular secretion is not affected to any great extent, but the vascular disturbance is the most noticeable symptom of the case. In the former, the evacuation of pus which may have formed, and the removal of the cheesy mass which distends the gland and its duct, is the first aim of treatment, and its accomplishment will subdue the peri-glandular inflammation. In the latter no local treatment is called for, unless it be a soothing and palliative application, but our chief aim must be to remove these varied causes which by reflex irritation tend to induce a constant or oft repeated flushing of the face. In these cases, the affected skin is extremely irritable, the lesions are almost urticarial in character and will not tolerate the harsh local measures which are so valuable in a purely glandular form of the disease. A careful distinction between these two phases of acne is of the utmost importance, and I feel confident that the hint which I have given as to the general plan of treatment required by each will be worth far more to the reader than a host of formulæ.

In the local treatment of acne, the curette is without doubt the best of all remedies. In a well marked case, where numerous papules and pustules are present, a curette of large size may be employed in the manner suggested by Behrend with a most beneficial result. The affected skin is scraped vigorously with the instrument, and the projecting portion of the lesions thereby cut or torn off. Pus is evacuated, the sebaceous plugs in the follicular ducts are partially removed, and the glandular congestion is lessened by a free hemorrhage. The procedure leaves the face excoriated and unsightly, but after a few repetitions at intervals of three or four days, the acne lesions will have entirely disappeared, and when the redness has gradually faded, which will usually happen after the distended glands are emptied, the face will present a normal appearance. A bad case of acne cannot be improved so quickly by any other mode of treatment.

In indurated acne a lancet is required, and a wide-bladed one, with shoulder to prevent its penetrating too far, is advisable. The indurated nodules may contain pus, which will escape after a simple puncture, but often a hard, cheesy mass is seated deep in the skin, and becomes a constant source of inflammation. A puncture which only allows a few drops of blood, or even a little pus, to escape, is hardly of sufficient benefit to warrant the pain which it causes. The deep-seated mass of hardened sebum must be removed, and to effect this, it is necessary sometimes to make a tolerably free and deep incision. A convenient instrument which I would be loath to dispense with in the treatment of acne consists of a tubular handle with a small curette screwed upon one end and an acne lancet upon the other. When not in use the curette and lance are inside the handle, so that the instrument can be carried in the vest pocket. In evacuating the inspissated contents of the glands, when they are not inflamed, but project as little white granular tumors (acne albida), the epidermis may be lightly pricked with the lancet, and the cheesy mass extruded by pressure of the point of the curette as explained in speaking of the removal of comedos. (Page 14.)

Soap frictions are of value in those cases of acne where the lesions are small and numerous. When they are few and far between, it is unnecessary to inflame the whole skin of the part treated, but preferable to use the curette. The officinal green soap, or ordinary soft soap, or the Tinctura saponis viridis may be used in the following manner: Before going to bed, a piece of flannel or lint is first dipped in hot water, and then upon this the soap is applied to the face. The skin should be scrubbed vigorously for five or ten minutes, and the face then bathed in hot water, and nothing of a fatty nature applied. In a few days the skin usually becomes red and painful, and the patient often objects to the treatment, as it does not improve the appearance of the face. It is important, however, to continue the frictions until a considerable degree of artificial inflammation is excited, as will be seen by a tendency of the epidermis to peel, and in some cases it will be necessary to have the patient leave the soap upon the skin all night. When the skin is sufficiently inflamed, the soap frictions should be discontinued, and a soothing ointment applied to the face. In a few days the acute inflammation will have subsided, and the skin will appear much smoother and softer than before the treatment began. In obstinate cases, it is often necessary to return to the use of the soap several times before the skin will present a natural appearance, each series of frictions removing many of the comedos and acne lesions. Even when the skin has become quite smooth and free from acne, a certain amount of redness will often remain, which can be treated by one of the numerous sulphur ointments or lotions of which the following are samples.

℞	Washed Sulphur,	- -	10 parts.	℞	Precipitated Sulphur,	- -	15 parts.
	Carbonate of Potassium,	-	5 "		Tannic Acid,	- - -	2 "
	Ether,	- - - -	15 "		Glycerine,	- - - -	3 "
	Glycerine,	- - -	5 "		Cologne Water,	- -	30 "
	Alcohol, to	- - -	100 "		Mucilage of Starch, to	-	100 "
M.				M			





ACNE VULGARIS

℞	Washed Sulphur,	10 parts.	℞	Precipitated Sulphur,	5 parts.
	Tincture of Benzoin,	10 "		Tannic Acid,	5 "
	Mucilage of Starch, to	100 "		Petrolatum, to	100 "
M.			M.		

The local use of sulphur is often beneficial in acne, as it serves to stimulate the circulation, lessen the passive hyperæmia and thus to bleach the complexion, but the remedy will not reach the cause of the congestion nor have any effect in emptying the contents of the torpid glands, and hence the common practice of depending wholly upon some sulphur application for the cure of acne is manifestly absurd and is usually the secret of the frequent failure in treatment. In mild cases of acne among young women the precipitated sulphur may be used as a face powder, but the benefit derived from its use in this manner is slight in comparison with what has been claimed for it. In chronic cases with much inflammatory thickening of the skin and little or no tendency to suppuration the iodide of sulphur ointment of varying strength will be found serviceable. In prescribing sulphur as an application to the face in any form the physician must always bear in mind that its chemical combination with lead or mercury in the follicles of the skin will produce a multitude of black specks which often look worse than the red blotches of acne. The patient should be questioned as to whether any lead or mercurial applications have been recently made to the face, and if so, the skin must be scrubbed thoroughly with soap and hot water before it will be safe to prescribe the use of sulphur. Mercurial applications are of comparatively little benefit in most cases of acne, although corrosive sublimate is an ingredient of many of the cosmetic lotions intended to beautify the skin and which are often recommended in the treatment of acne. When it is necessary to give some pleasant local application to satisfy the patient while the indigestion or other cause of the acne is being gradually removed, one of the following may be ordered.

℞	Corrosive Sublimate,	1 part.	℞	Corrosive Sublimate,	1 part.
	Thymol,	4 parts.		Chloride of Ammonium,	2 parts.
	Alcohol to	100 "		Cologne Water to	200 "
M.			M.		
℞	Corrosive Sublimate,	1 part.	℞	Corrosive Sublimate,	1 part.
	Dilute Hydrocyanic Acid,	10 parts.		Subnitrate of Bismuth,	15 parts.
	Mixture of Bitter Almonds to	500 "		Camphor Water to	500 "
M.			M.		

While local treatment is of great value in many cases of acne there are some in which it is capable of producing very little benefit, and in a great majority of cases general treatment is of the utmost importance. In that large class of cases of irritable acne occurring in women where the vascular disturbance is a more prominent feature of the affection than any anomaly of the sebaceous secretion, my experience has led me to discard local treatment and to depend almost entirely upon dieting and hygienic regimen.

The effect of a modified or restricted diet is usually more marked in acne than in almost any other affection of the skin. There is usually some form of indigestion at the root of the trouble; and although many confirmed dyspeptics have a fair complexion, and many acne patients scorn the imputation that there is anything the matter with their digestion, I must say that I constantly find that a change in the quantity and quality of their food will produce an immediate amelioration of the eruption and notably improve the general health. Tea and coffee, as well as wine and beer, must be forbidden. The diet must be of the plainest and most nutritious kind, and not only should highly-seasoned food, rich gravies, pastry, cake and candy be excluded from the dietary list, but every article of food, the propriety of eating which is open to suspicion, should be resolutely put aside. The meals should be taken regularly and deliberately. Little if any water should be drunk at meal time, but a large amount can be taken with benefit about two hours after each meal, when the digestive process is nearly completed. This will often relieve the habitual constipation and frequent headaches from which acne patients are disposed to suffer. In many cases the stomach needs a rest, and it is sometimes advisable to allow but one full meal daily, the breakfast and lunch (or supper) consisting of merely a slice of brown bread, with a little fruit or glass or two of milk, if this is found to agree with the patient. An increased amount of exercise should be prescribed with the restricted diet. Indeed the rule to eat less and exercise more will be found to strike at the root of acne and of many other affections of the skin.

The Turkish bath is one of the most valuable remedies in the general treatment of acne. An imperfect circulation, with a tendency to cold and clammy hands and feet is frequently noted in connection with the eruption. and the bath taken twice or three times every week will not only improve the affected skin but increase the tone of the whole system.

Of internal remedies there are two which deserve a special mention. These are calx sulphurata and ergot. The former, by virtue of its influence upon the suppurative process is often of great value in certain cases of pustular acne, if given in a proper dose. The failures in the use of this drug in acne have generally resulted from its employment in too large a dose, a grain or two daily being frequently given. My plan is to order one-tenth of a grain every two hours in a case of chronic, indurated acne, and to give one-twentieth, one-fifteenth or even less at a dose in the more acute and irritable cases.

Ergot may be given, as recommended by Denslow, in the form of a fluid extract, a half drachm three times daily, or three grain pills of ergotine may be employed. Any digestive error should be corrected by suitable remedies before the ergot treatment is begun. I have seen some brilliant results from the use of this drug, and have seen it productive of no beneficial result whatever in other cases. It appears to act best in the case of lymphatic subjects, with a thick, pasty skin and sluggish circulation, which fact would seem to corroborate Denslow's view that the ergot cures the acne by virtue of its action in contracting the *arrectores pilorum* or little muscles which run beneath the sebaceous glands, and not as others have supposed, through its action upon the capillary vessels.

SYCOSIS.

Synonym—Barber's Itch.

Sycosis is an inflammatory disease of the hair follicles, usually affecting the bearded portion of the face. It is characterized by tenderness and swelling of the skin and the development of deep-seated nodules and superficial pustules, each one of which is usually perforated by a hair. The affection is allied to acne and differs from it in its anatomical seat, the inflammatory process taking place in and around the hair follicles instead of the sebaceous glands.

The affection often begins suddenly with a heat and tension in the part, and the primary starting point of the inflammation, according to Robinson, is in the connective tissue around the hair sac, thus constituting a perifolliculitis. The follicle becomes quickly involved and the pus reaches the surface of the skin between the hair and the follicular wall. The lesions may be scattered over the cheek or chin, but since inflammation of one follicle is very apt to extend to those in the vicinity, the eruption is usually found in ill-defined patches where the lesions are crowded. It is rare for the whole bearded portion of the face to be involved, and this never occurs except in extremely chronic cases. Occasionally the eye-brows and eye-lashes, the scalp, neck and pubic region are affected.

The course of sycosis is variable. In some mild cases it may tend to a spontaneous cure, but generally it becomes a chronic and most annoying affection. When the follicular suppuration has been profuse the matrix of the hair is often destroyed and permanent baldness of the affected part is the result.

Sycosis is a disease of adult males. It often attacks the robust, although its worst phases are generally observed among those who are weak or in poor condition. It is seldom met with upon the face of those who are addicted to the daily use of a razor. The proximate cause has been supposed to be the premature growth of new hairs in the follicles, the smallness of the follicle in proportion to the size of the hair, the irritation resulting from the use of a dull razor, etc., etc. The etiology is generally obscure and does not throw much light upon the treatment of cases.

Diagnosis. It is sometimes difficult to distinguish sycosis from trichophytosis barbæ, which, in some instances, assumes a nodose form and presents a true folliculitis. This is described by some writers as a distinct affection from ordinary ringworm, and is called sycosis parisitaria. In this affection there is usually a considerable amount of subcutaneous inflammation, and the affected skin often swells up into a fig-like tumor, which, subjected to pressure, oozes pus at every follicular opening. In the vicinity and upon other portions of the body the typical scaly patches of ordinary ringworm are often present and thereby reveal the parasitic nature of the affection. The history of contagion and the friability of the hair will sometimes lead to a correct diagnosis of the cause of the folliculitis, but in all cases of a doubtful character the microscope must be relied upon to determine the presence or absence of the trichophytic spores.

Sycosis bears a strong resemblance to a pustular eczema, and Piffard and some other excellent dermatologists deny that the affection is distinct in its nature. While it is true that eczema often attacks the bearded portion of the face and in some instances does not confine itself to its favorite anatomical seat in the mucous layer of the epidermis, but also involves the follicles, and thus induces a folliculitis or secondary sycosis, there yet remain many cases in which there is simply a follicular inflammation without any tendency whatever to that catarrhal inflammation of the skin, which is the essential element of eczema.

In eczema of the beard the eruption is apt to extend upon the hairless parts, and especially to appear about the ears. The hairs are never loosened however intense the cutaneous inflammation may be, and there is frequently a weeping surface. In sycosis the eruption is invariably restricted to the hairy parts. The suppuration within the follicles produce a loosening of the hair and often a spontaneous depilation, and however thick the pustules and crusts may appear upon the surface of the skin, there is never any superficial serous exudation such as is observed in eczema.

A tubercular syphilide of the bearded portion of the face might be mistaken for sycosis on account of the presence of nodules and crusts, but the grouped and circular character of the tubercles, and the complete absence of pain or a burning sensation would point to syphilis rather than to sycosis.

TREATMENT. Although sycosis often proves to be a chronic and rebellious affection there are few if any cases in which a judicious plan of treatment will not effect a cure in a reasonably short time. Local measures are of chief value, although in every case such general treatment as will conduce to an antiphlogistic effect upon the skin ought not to be neglected. Restricted diet and mineral waters will usually do much to relieve the congestion of the skin and thereby lessen the pain which in some cases is a prominent feature of the disease.

At the beginning of our treatment it is always advisable to have the face closely shaven if the patient will submit to this procedure. If the skin is too tender to allow the use of a sharp razor, the hairs may be clipped as short as possible and a hot poultice applied. The next step is to remove by means of the epilating forceps all hairs which are loosened by the follicular suppuration and as many more as will yield to the slightest traction. In some cases this is an extremely painful operation, and I have known strong men to wince and shrink at every approach of the forceps to the face, and after the removal of a few hairs declare that they could not possibly bear to have more removed that day. The effect of the removal of a few hairs which act like thorns in the inflamed flesh, is always notably beneficial, and by persistence in this method of treatment a relief of the pain and swelling is obtained which no soothing ointment or lotion could possibly produce. When all the loose hairs are removed the oxide of zinc ointment or the following may be applied in place of the poultice.

℞.	Lead plaster, - - - - -	20 parts.
	Carbolic Acid, - - - - -	5 "
	Petrolatum, to - - - -	100 "
M.		



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PORRIGO (IMPETIGO CONTAGIOSA.)

ARTOTYPE E. BIERSTADT, N Y

From week to week such hairs may now be epilated as appear surrounded by a papule, and soon the tendency to pustulation will be found to have ceased entirely. The skin often remains somewhat thickened and red for a month or two, and when the epilation is no longer deemed necessary the affected hairs may be rubbed nightly with a five per cent. oleate of mercury or the white precipitate ointment.

The progress of a disease towards a cure is not always uniform, and frequently a relapse occurs with a sudden increase of pain and swelling in the affected skin. In such a case it is necessary to suspend any stimulating plan of treatment for a few days, and often advisable to prescribe pugation and poulticing until the acute inflammation has subsided.

PORRIGO.

Synonym—Impetigo contagiosa.

The name Porrigo has been applied by the older writers on skin diseases to so many pustular, as well as non-pustular affections of widely different nature, that, at the present day it is scarcely able to retain a position in dermatological nomenclature. As there exists, however, a contagious pustular affection of the skin, which is neither eczematous nor unmistakably parasitic, and to which no settled name is attached, I am disposed to follow the example of Startin, Nayler, and Hutchinson, and to apply to it the old and misused term, Porrigo.

The affection is an acute one, and is characterized by a rapid development of one or many flat, vesico-pustules, which spring from an apparently normal skin. These are quite superficial, tend to enlarge peripherally though remaining flattened, and usually attain the size of a ten-cent piece. The crusts which form are thick, friable, varying from a straw color to a greenish-yellow, or brownish hue, and often presenting a central depression, like a vaccine crust. They are lightly adherent, and when forcibly removed, expose a raw, purulent surface, but no deep ulcer. When allowed to dry and fall, a thin, reddened epidermis remains for a short time, and disappears without leaving a scar. The chief peculiarity of the pustules is their contagious character. When occurring, as they frequently do in connection with phtheiriasis, it is quite apparent that they tend to develop whenever the skin is excoriated, and it appears quite probable that the pus partakes of an infectious nature, and is carried from one point to another by the finger-nails. New pustules may be readily produced by intentional auto-inoculation. The affection is quite common among children, but it also attacks adults. Frequently several members of a household are successively affected, and epidemics have been reported to occur. The pustules are most frequently met with upon the scalp and face. The trunk and extremities, and particularly the fingers, may also be its seat. It occasionally develops when no apparent cause exists. Local irritation of some sort, however, can generally be detected, and to the irritating presence of pediculi the affection is frequently attributable. A fungus has been described as existing in the crusts, but it has not been proven to be the essential cause of the affection.

A bullous form of the disease I have recently had the opportunity of observing at the

Nursery and Child's Hospital, through the kindness of Dr. E. L. Partridge. The eruption might have passed for an acute pemphigus, but the typical character of the lesions in one case and the strong probability of it having affected three other children through contagion, appeared to me sufficient to establish the diagnosis. These latter children were thin and weakly and the eruption was mostly confined to the neck and breast. Bullæ as large as a walnut, though not tense, formed in numbers. The whole neck became almost denuded of epidermis, leaving a dry reddened patch of skin with a peeling border. In only one of these cases was the eruption accompanied with fever.

Diagnosis. The diagnosis is easy, although some confusion arises from the varying descriptions of Impetigo and Eczema *impetiginosum* which are found in the text books. The term Impetigo is regarded by most recent writers as a synonym of pustular eczema, "an eczema," according to Tilbury Fox, "occurring in a pyogenic habit of body." The Impetigo *contagiosa*, described by this late writer, appears to me to be simply a form of Porrigo which occurs largely among children, and is usually accompanied at the outset by slight febrile symptoms. Such cases I have had repeated opportunities of studying, and have verified the admirable description of the eminent English author. I see no reason, however, why the name which is applied to these cases (be it Porrigo or Impetigo *contagiosa*), should not also be applied to an eruption of isolated, contagious, vesico-pustules in adults, although unac companied by febrile symptoms, and occurring as a complication of phtheiriasis.

Treatment. To cure the affection it is first nesessary to remove the crusts, which can be done without violence after the application of a poultice or folded cloth wrung out of hot water. A five per cent. ointment of carbolic acid may then be applied to the affected skin for a few days. In many cases the lesions tend to run a definite course of from one to three weeks, and sometimes they do not yield to treatment as readily as their superficial character would lead one to expect.

ERYSIPELAS.

Erysipelas is an infectious disease characterized by an eruption which, starting at a given point, gradually involves succeeding portions of skin. This is always accompanied by fever, and usually a chill, or succession of chills, with general lassitude for several days, precedes the eruption. When erysipelas occurs spontaneously, some portion of the face, and usually the bridge of the nose is the starting point. The eruption begins as a red and tender lump, upon which pressure of the finger leaves a temporary yellowish pit. It spreads gradually, becoming deeper in hue, and the advancing border of the patch is always abruptly raised, like a wall, above the healthy skin.

In connection with the fever and cutaneous inflammation, some of the internal serous membranes may be inflamed. In every severe case of erysipelas of the face and scalp there is usually more or less swelling of the throat, and a fatal result is not unfrequently the result of œdema of the glottis, or cerebral congestion. On the other hand, the disease sometimes produces an unexpectedly favorable result, and patches of erythematous lupus and chronic

eczema, or leg ulcers, may disappear entirely or be greatly benefited in consequence of an attack of erysipelas. When the affection recurs frequently in the same locality, as it sometimes shows a disposition to do, a chronic œdema ensues, which in time leads to a marked thickening and induration of the skin as in elephantiasis.

The cause of erysipelas is, without doubt, an infectious germ which usually finds an entrance into the system through some abraded or raw surface, such as an ulcer or fresh wound. Even when it commences upon the unbroken skin of the face, without any known exposure to contagion, it is quite possible that some stray germ of the disease has been absorbed through some trifling lesion of the nasal mucous membrane.

Erysipelas may begin within the nose or upon the mucous membrane of the pharynx and by extension through the nasal passages reach the skin. It frequently has its starting point at the umbilicus of the new born child, and in such a case it sometimes extends over the whole body and terminates fatally. Its occurrence after vaccination is not uncommon, and the tendency which it frequently manifests in hospitals to occur in epidemic form and to attack every raw surface naturally renders it the dreaded foe of surgeons.

The lids of one or both eyes usually become œdematous and tightly closed. The mouth can scarcely be opened when the lips are involved, and in some cases the features become so changed in appearance that the patient would scarcely be recognized. The swelling of the ear usually prevents the sufferer from lying upon that side, and when the patch has extended over the scalp, the pain from pressure of the pillow is apt to be severe and annoying. Occasionally the eruption extends down upon the back.

In most cases, the swelling of the skin and the accompanying pain lessen in a few days, so that the parts first attacked become smooth, or merely covered with a desquamating epidermis, while the active inflammatory process is invading new territory. The surface of the swollen skin is frequently the seat of vesicles, or bullæ, which dry and form crusts as the swelling subsides. Sometimes, in old persons, gangrene of the skin occurs.

DIAGNOSIS. Erysipelas may be readily distinguished from erythema, eczema and other inflammatory skin affections by the general febrile symptoms which accompany the eruption, the pain and swelling of the affected part and the abrupt margin of the advancing patch. There is a cellulitis, however, which is erysipelatoid in character and which is often difficult to distinguish from the true disease.

TREATMENT. An appreciation of the infectious nature of erysipelas ought to be of great service in its prophylaxis. Although many cases appear to be spontaneous, and cannot possibly be avoided, there are some which are the direct result of carelessness, and for which the physician or surgeon should be held responsible. Surgical instruments, and especially the vaccine lancet, should be thoroughly cleaned by some disinfectant fluid after every operation, and every case occurring in hospital ought to be isolated at the earliest possible moment. In the treatment of every case, both local and general measures are called for. The old plan of attempting to check the spread of cutaneous inflammation by painting the neigh-

boring healthy skin with iodine or nitrate of silver, is now obsolete, and our chief aim should be to relieve the pain and swelling. This can be best effected by the application of a lead and opium lotion or some soothing ointment. Painting the affected skin with collodion is apt to occasion more discomfort than benefit, and is inferior to the use of compresses dipped in hot water containing carbolic acid. When the fever is of high grade, full doses of quinine are indicated, and if the stomach does not tolerate the drug, it may be administered in the form of a suppository. Iron and quinine should be given steadily until convalescence sets in. Carbonate of ammonia every two hours has been employed successfully.

FURUNCULUS.

Synonym—Boil.

A furuncle is a localized inflammation of the skin and subcutaneous tissue, producing a reddened, conical and painful tumor. Its essential feature is the formation of a central slough, in which respect it differs from simple follicular inflammation or a superficial abscess. It begins as a small pointed papule, which in a few days has usually increased to the size of a large pea or marble. The skin is tense and red, and at the summit of the conical tumor a small grayish speck is apparent. This rapidly becomes pustular, and soon an opening is seen through which the pus formed within the tumor, together with the "core" or sloughing tissue may be spontaneously evacuated.

Boils are usually multiple, and develop successively, or in repeated crops. The individual tumor runs a limited course of from one to two weeks, but the tendency to the occurrence of others in its place often persists for several months. The neck is the favorite seat of the lesions, but there is scarcely any portion of the body which is exempt from the location of a boil, and no spot seems to the patient so undesirable to have it as the very one upon which it has located.

The cause of boils is not always apparent. While they are not infrequent among poorly nourished children, and adults whose general condition is impaired by dissipation of various sorts and by overwork, they sometimes attack those who are robust and apparently in ordinary health. Strangely enough, the affection is quite apt to be observed in the case of athletes who are undergoing a course of training. As a direct result of diabetes, boils are frequently noted, and their repeated occurrence should lead to an examination of the urine.

Diagnosis. A typical furuncle is not apt to be mistaken for any other disease of the skin, but the affection often runs an abortive course, and no central slough is formed. These so-called "blind boils," are often met with in connection with other inflammatory eruptions, and as described by Bronson, are a frequent accompaniment of miliaria.

Treatment. Boils may sometimes be arrested in their incipient stage by the administration of calx sulphurata and the other alkaline sulphides which, according to Ringer and the experience of many others, exert a marked influence upon the suppurative process in various affections. When a boil is at its height, one-tenth of a grain of the drug given three

or four times daily, will hasten the suppuration and natural course of the disease. Moderate purgation for a few days with Rochelle salt or mineral water will often check the tendency to a fresh crop of boils.

As for local treatment a poultice is of the greatest service in the incipient stage, when pain and tension of the skin are present. As soon as the boil "points" it should be freely lanced, or carbolic acid introduced into the sloughing centre. The latter plan of treatment is usually more agreeable to the patient. My plan has commonly been to prick the boil at this stage with a sharp splinter or wooden toothpick dipped in carbolic acid. As soon as the opening is sufficiently large, a little cotton wound around the point of the toothpick and immersed in the acid should be introduced into all parts of the furunculous cavity. This procedure soon lessens the pain and swelling, and promotes a radical cure.

CARBUNCULUS.

Synonyms—Anthrax—Carbuncle.

A carbuncle is of the nature of the furuncle, but is distinguished from it by the greater extent of tissue involved, the severity of the constitutional symptoms which precede and accompany the local inflammation, and by the gravity of its prognosis. It begins with pain and induration of a small portion of skin, and quickly forms a flattened tumor of the size of an egg. The skin is at first merely reddened, but gradually assumes a dull, livid hue. In a few days a number of openings appear upon the surface, from which mingled blood and pus can be readily pressed. A number of separate sloughs may form at these points, or the whole tumor may become necrotic in character and form a greyish or blackish mass. This is gradually cast off, and leaves usually a very deep ulcer, which, under favorable circumstances, heals slowly and produces a hard and puckered cicatrix. At the outset the pain is excessive, and lasts until sloughing has taken place. A chill often precedes the development of the inflammation, and a high degree of fever accompanies its progress. Inflammation of pleura or lung sometimes occurs and symptoms of pyæmia are always liable to appear and lead to a fatal result. In many cases of carbuncle in those advanced in life, death results from exhaustion. The seat of the affection is usually the neck or back, but it may attack the anterior portion of the chest, or other portions of the body.

Treatment. The strength of a patient attacked by carbuncle must be maintained by beef tea and stimulants. Quinine, given in full doses, is generally of service. As in furuncle, calx sulphurata will tend to check the inflammation at the beginning, and hasten the suppuration at a later stage.

The most approved local treatment is a deep crucial incision as soon as suppuration is established. The pain of this operation can be lessened by previously freezing the skin with an ether spray or an application of salt and ice. Carbolic acid may be injected subcutaneously at the very outset, and should be freely and repeatedly applied in an undiluted form as soon as the incision has been made.

ULCUS.

Synonym—Ulcer.

An ulcer is a lesion of the skin or mucous membrane, characterized by loss of tissue and slight disposition to spontaneous healing. In the latter respect it differs from an ordinary wound.

Some dermatological writers do not regard an ulcer as a distinct disease of the skin, but consider it as a mere lesion occurring in the course of various diseases. Other writers treat of cutaneous ulcers as a distinct class of skin diseases. Certainly the importance of these lesions, whatever may be their cause, is an ample warrant for a separate consideration of their peculiar features.

Ulcers in general vary greatly in size and shape, in the character of their surface and border and in the condition of the surrounding skin. Small ulcers, occurring where the skin is rather tightly drawn, are commonly circular, while larger ones may be oval, elliptical, kidney-shaped, or irregular in outline.

The surface of an ulcer is sometimes smooth and clean, of a bright red color, and characterized by the small hemispherical granulations which give promise of a speedy cicatrization. On the other hand it may be covered with a foul secretion, which adheres to and conceals its base, or the granulations may be of an exuberant fungous character, rising above the surface of the skin at the margin and giving rise to the common term, "proud flesh." Frequently these granulations are extremely painful upon the slightest pressure and bleed at the slightest touch. Occasionally the surface presents a diphtheritic appearance, being covered by a yellowish-white tenaceous membrane. A crust of a yellowish, greenish or blackish hue and variable thickness often forms upon and adheres to the edges of the ulcer.

The border of an ulcer may be smooth and soft, or on the other hand elevated considerably above the level of the skin and more or less indurated. The wall of this border may slope gradually to the edge of the granulations, may be abrupt or steep, and finally the border may be undermined to a considerable extent.

The skin surrounding an ulcer may be in a perfectly normal condition, or considerably inflamed and swollen. Upon the legs it is often eczematous in character and usually pigmented and scaly.

Ulcers occur as a result of the softening of various neoplastic growths or as the result of an inflammatory process. In the former class we have those which are common in lupus leprosy, cancer and the gummy deposits of syphilis. In the latter class we have both idiopathic ulcers and such as are caused by scurvy, scrofula and syphilis in its early stages.

TREATMENT. In the treatment of ulcers two main objects are to be considered, the removal of the cause so far as this is possible, and the adoption of such measures as will tend to convert the ulcer into a healthy granulating wound. The disease of which the ulcer is merely an incidental feature must be treated upon principles elsewhere laid down. The

inflammatory condition which predisposes to its development must be combatted with antiphlogistic measures, while the new growth, which is so often its cause, must be destroyed. The mechanical agencies which aggravate even when they do not cause the ulcer must be counteracted by the exercise of the utmost care and attention.

Since of all ulcers, those occurring upon the leg are most common and most frequently rebellious, the limited space at command may be best devoted to their treatment. A routine plan will not suffice here. While one leg ulcer needs the most tender care another will only respond to harsh methods. The first and a most important step is to decide as to the nature or cause of the ulcer, and for practical purposes leg ulcers may be conveniently divided into three classes, viz.: syphilitic, eczematous and simple ulcers. If the ulcer is situated upon the upper third of the leg and not transmatic, it generally owns a syphilitic origin and demands specific remedies. The same rule holds as to leg ulcers, which are kidney-shaped or multiple, and arranged in a semi-circle, or occurring upon a swollen ankle with deep sinuses apparently reaching to the bone. If an ulcer is surrounded by a broad zone of reddened or pigmented skin it is usually the result of a pre-existing or present eczema. The leg is usually larger than its mate and swells considerably after the patient has walked or stood for some time. The ulcer is apt to be painful and frequently is associated with a varicose condition of the veins. In such a case it is always advisable to put the patient to bed or to keep the leg constantly elevated, if either course is possible. This being rarely the case in practice among the poorer classes the next best thing to do is to bandage the leg carefully and teach the patient to do the same every morning before getting out of bed. A light cheese-cloth roller bandage is the best adapted to this class of cases, as a rubber bandage is liable to cause the eczema of a congested leg to spread. If the ulcer is foul a little charcoal or iodoform may be applied to the surface and covered with a thick, soft muslin. If it is painful and presents a thin ichorous discharge there is no better application than the subnitrate of bismuth beneath the bandage. It may be advisable to apply an ointment to the eczematous skin around the ulcer but not as a rule to the ulcer itself.

A simple ulcer, resulting originally in traumatism, may be irritable or indolent. In the former case it needs rest and the constant application of hot fomentations. Indeed, if a patient can be kept in bed, no matter whether an ulcer is a simple or a syphilitic one, healthy or sloughing, there is no local treatment which, in my experience, will compare with the frequent application of hot cloths. If the ulcer is indolent with a glazed surface and callous edges an excellent plan is to place the leg in hot water every day and puncture the ulcer and surrounding skin with the point of a lancet until the blood flows freely from a score or more of small incised wounds. When a large ulcer has been brought to a healthy granulating condition the healing process can be greatly hastened by the adoption of the process known as skin grafting.

ONYCHIA.

Synonym—Paronychia.

Onychia is a term applied to inflammation of the soft tissue beneath or around the nail. In most cases the fold of skin rising above the lateral border of the nail is the part affected (onychia lateralis), but sometimes the inflammation takes place at the root of the nail or in the underlying tissue.

Onychia lateralis or Paronychia most frequently affects the great toe, and constitutes a painful and annoying affection. By the almost constant pressure of tight shoes the external border of the nail becomes unduly curved, and the swelling of the soft parts in the immediate vicinity produce that chronic condition which is commonly known as "in-growing toe nail." Frequently the inflamed skin at the side of the nail ulcerates, as the result of pressure and fungous granulations spring up over the surface. Paronychia of the finger nails is usually the result of injury, and runs an acute course. Suppuration usually takes place in a few days along the border of the nail after which the pain and swelling subsides, although the inflammation may extend to the matrix of the nail and cause the latter to be cast off.

Inflammation of the root of the nail (onychia retrounguealis) and the underlying soft part (onychia subunguealis) may occur as the result of injury or in connection with syphilis, variola or scrofula. This form of onychia is usually more severe and commonly results in the loss of a portion or the whole of the nail. With the subsidence of the acute inflammation the new nail begins to form and in time rises and loosens the old one.

The diagnosis of onychia from affections of the nail substance, to be mentioned later, depends upon the presence of inflammation.

Treatment. The occurrence of inflammation about the nail occurring after injury may be avoided to a certain extent by the immediate immersion of the part in hot water. When a spontaneous paronychia is threatening, the progress of the inflammation can often be checked by painting the reddened and slightly-swollen skin with a ten per cent. solution of nitrate of silver. When the inflammation is well established and especially when there is ulceration present the best method of treatment is the constant application of the following ointment.

℞ Iodoform, - - - - - 10 parts.
Balsam of Peru, - - - - - 20 "
Petrolatum to - - - - 100 "
M.

This may prove too stimulating in certain cases, and therefore be adapted only to the healing stage of the affection, but in many chronic and indolent cases it will produce most beneficial results.

In all cases of onychia not of traumatic origin the possibility of its dependence upon syphilis or scrofula must be carefully considered and the appropriate general treatment adopted.

ONYCAIA.

The management of in-growing toe-nails and the frequently resulting inflammation often requires the most careful attention and skill. The ordinary discomfort which so many experience from a slight degree of incurvation, if it be neglected, can best be relieved by paring the corner of the nail as far back as possible after it has been thoroughly softened by a prolonged hot foot bath. When painful inflammation is present a broad shoe or slipper must be worn until it subsides. When ulceration has taken place the granulating surface must be carefully separated from the nail. This can be accomplished in the following manner: The nail should first be scraped to render it as thin and flexible as possible. A hot foot bath will then soften the skin and render it less painful. The edge of the nail can now be carefully raised and a thin piece of lead or even a strip of linen pressed beneath it. Into the sulcus beside the nail a little charpie must be pressed and the soft parts drawn away from the border of the nail as far as possible by the traction of narrow strips of adhesive plaster carried under the toe. This plan of treatment insures speedy relief and usually effects a cure of the trouble in the course of a month.

Avulsion of the nail or excision of the lateral portion has been highly recommended by many surgeons, and it is claimed that the very best result can be most speedily attained by simply cutting away the soft tissue which crowds against and over the curved edge of the nail.

CHAPTER III.

HEMORRHAGIC AFFECTIONS.

An effusion of blood from the cutaneous capillaries may result from three causes, viz., external violence, increased blood-pressure, and weakness of the vascular walls. In many cases of cutaneous hemorrhage a rupture of the vessels takes place, but on the other hand it is possible for the blood corpuscles to pass through the uninjured walls of the capillaries, and without doubt this process (diapedesis) frequently occurs. To all forms of cutaneous hemorrhage some writers have applied the term purpura, which is manifestly wrong, since it places a flea-bite or a "black-eye" in the same category with scurvy. The term purpura should be used in a restricted sense, and applied only to an independent disease, in which cutaneous hemorrhages occur as a primary lesion. This excludes the hemorrhage resulting from a blow, fall, or the bite of an insect, as also that which is due to obstruction of the venous circulation. It excludes the hemorrhage which occurs secondarily in the course of the exanthematous fevers (*e. g.*, Variola hemorrhagica), and in certain inflammatory skin affections, such as erythema, urticaria and pemphigus. Finally, it excludes scorbutus (or *scurvy*), as being an affection due to a definite and well-known cause.

Cutaneous hemorrhage may occur in the form of numerous punctate spots resembling fleabites (petechiæ), as fine lines or streaks (vibices), or as discolored patches of various size and shape (ecchymoses). In rare instances the effused blood raises the epidermis and forms what is sometimes termed a "blood-blister" (ecchymoma). Cutaneous hemorrhages are classed as traumatic and spontaneous.

PURPURA.

It is customary to describe three forms of purpura. In the most common form, or purpura simplex, numerous small spots, of a bright purplish-red or claret color, appear suddenly on the lower extremities, and in rare instances on other portions of the body. They occur spontaneously, and are usually unaccompanied by any marked general symptoms. The bright color changes in the course of a few days to a dull red, and after assuming the greenish and yellowish hues so frequently noted after an ordinary bruise, the spots gradually disappear. Fresh extravasations often appear from time to time during the course of the affection, and thus a contrast of colors may result. The spots commonly vary in size from a pinhead to a small pea, are not at all elevated, and do not disappear on pressure. Sometimes they are slightly prominent at the outset, and sometimes large livid patches develop.





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PURPURA.

ARTOTYPE E. BIERSTADT N. Y.

When the hemorrhage takes place in or around the hair follicles a papular form of purpura is developed which was formerly described as lichen lividus, and later by Hebra as purpura papulosa.

Purpura hemorrhagica is a more aggravated form of the disease, in which large cutaneous extravasations are seen, not only on the skin, but also upon the mucous membranes. Hemorrhages from the nose and gums occur, as also bloody stools and urine. The constitutional symptoms are marked, and the weakness resulting from a continued loss of blood may lead to a fatal termination.

Purpura (or peliosis) rheumatica is a peculiar affection (conveniently regarded at present as a form of purpura), in which arthritic pains and fever precede an eruption of small hemorrhagic macules upon both trunk and extremities. The disease usually runs a brief course, although a repeated onset of fever and rheumatic pains, followed by cutaneous hemorrhages, may protract it for months. It commonly attacks those who have a rheumatic tendency, but are otherwise apparently well.

Diagnosis. The diagnosis of the simple and hemorrhagic forms of purpura is unattended with difficulty. To the practiced eye the cutaneous lesions are characteristic, but their hemorrhagic nature can be easily verified by noting the fact that they do not change in color under the pressure of the finger, a circumstance which enables the tyro to distinguish them from inflammatory lesions. Scorbutus, or sea-scurvy, is regarded as distinct from purpura hemorrhagica, on account of its gradual development, the marked swelling of the gums, with loosening of the teeth, and the extreme debility, which are its prominent features ; and from the fact that it occurs so frequently among sailors and those who cannot or do not eat fresh vegetables. Purpura rheumatica may be readily mistaken for rheumatism during the few days which precede the outbreak of the characteristic eruption. Tilbury Fox regarded this form as simply an erythema, complicated by hemorrhage.

Treatment. The treatment of purpura consists chiefly in removing any cause which may be ascertainable, and in enjoining absolute rest where the hemorrhages are severe and frequent. Iron, ergot, the mineral acids and quinine are remedies of value, although too much reliance may be placed upon their action, and too little thought given to the question of rest, proper diet, and the hygienic influences which surround the patient. In mild cases of purpura *simplex* a moderate amount of exercise is rather advantageous than otherwise, and often the treatment need not interfere with the daily duties of the patient. No remedy can be given to hasten the disappearance of the hemorrhagic spots, but full doses of the tincture of the chloride of iron will usually check the development of new lesions, and improve the general condition of the patient. In purpura *rheumatica* the patient usually recovers speedily under good nursing, although an anodyne may be necessary to relieve pain, and a tonic of iron or quinine prove serviceable at the close of the attack. In purpura *hemorrhagica* the patient must be kept as quiet as possible. Ergot may be given by the mouth or by hypodermic injection. For the latter purpose dissolve six centigrams (one grain) of ergotin in warm water and glycerine. This, with the use of ice, will promptly control the hemorrhage from

the mucous membranes. A diet of fresh vegetables, which invariably produces such a beneficial change in scorbutus (sea scurvy) is of no value in the treatment of purpura hemorrhagica.

SCORBUTUS.

Synonym—Scurvy.

Under certain conditions, prominent among which is an insufficiency of proper food, a train of symptoms occur to which the term scurvy is commonly applied. The affection is characterized by general malnutrition, extreme prostration, difficult breathing, a swollen and spongy condition of the gums and the occurrence of purpuric spots upon the skin. It commonly makes its appearance among sailors on long sea voyages, and in armies whose base of supplies has been cut off. It also occurs in isolated cases among the poverty-stricken population of many of our large cities. In this case it is sometimes spoken of as "land-scurvy," although its nature is identical with the affection so commonly associated with the sea.

The cause of scurvy has been the subject of considerable discussion. Some have attributed it to the eating of too much salt meat, of foods deficient in the salt of potash or in phosphoric acid, etc., but it is now generally believed that a deficiency of the organic acids in the food is the chief cause of the disease. It is certain that scurvy never develops among any class of men who are plentifully supplied with fresh vegetables.

TREATMENT. The means required for the prevention of scurvy are evident from what has been said of its cause. The same treatment will also cure the disease when once established. But on shipboard, or in a besieged city, fresh vegetables are a remedy not always attainable, and lemon juice has been found to constitute the best substitute. Dried vegetables, vinegar and citric acid are likewise of great value.

CHAPTER IV.

HYPERTROPHIC DISEASES.

The class of hypertrophic affections embraces those which are characterized by an increased volume of one or more of the normal elements of the skin. In clinical appearance and pathological importance they differ widely among each other. They are chronic in their course, whether congenital or acquired, and the majority are but slightly amenable to treatment.

Of the anomalies of pigmentation which form a division of this class, we have several affections or phases of cutaneous disease which might, with propriety, be described under one title, but time-honored custom has bestowed upon these separate forms of pigmentary disease a number of names which cannot easily be banished from dermatological literature, and hence it is convenient to describe them as distinct affections.

NÆVUS PIGMENTOSUS.

Synonym—Pigmentary Mole.

A pigmentary nævus is a discolored spot or freckle which usually appears in early life, and persists without undergoing any marked change in size or color. This affection is often spoken of as being congenital but is rarely so. The simplest form of nævus pigmentosus is a small pin-head sized brownish or blackish spot of so trifling a character that a number of them may exist upon the skin of a person whose attention has never been directed to them, and who would swear, if called upon to do so, that his skin was absolutely free from any blemish. A pigmentary nævus is round or elliptical in shape, perfectly smooth, and accompanied by no subjective sensation. It is, in short, a permanent freckle (*Nævus spilus*). In some cases this spot may be as large as the print of the thumb and similar in shape, while in rare instances large portions of the trunk are the seat of a circumscribed discoloration. In certain cases the nævus is elevated and somewhat warty in character (*Nævus verrucosus*), and very often is covered with a growth of hair (*Nævus pilosus*).

Treatment. A small, smooth nævus may be removed from the face or hands, where it is most apt to prove annoying, by applying carefully a drop of nitric acid or whatever will produce the faintest possible cicatrix. The warty form of nævus, which is sometimes pendulous, can best be removed by knife or scissors.

LENTIGO.

Synonyms—Ephelis—Freckles.

Freckles are small circumscribed yellowish or brownish discolorations of the skin, resulting from an abnormal deposition of pigment. They are usually of the size of a pin-head and discrete, but in some cases they are somewhat larger and often so numerous that a dark patch of considerable size is formed by their coalescence Upon the face, and particularly upon the nose and cheeks, they are most frequently observed, but they are not uncommon upon the backs of the hands and upon the neck and arms after habitual exposure of these parts. In rare instances they occur upon the trunk, thighs and other covered portions of the body. I have a photograph of one case in which they were abundant upon the abdomen and penis. In this instance they were persistent, like pigmentary nævi, but became much darker and more striking in appearance every summer, though not exposed to the direct action of the sunlight.

While the tendency of certain individuals to freckle is evident to the simplest observation, the reason of this fact is not readily discovered. Persons with a fair complexion and reddish hair are far more likely to become freckled than those of the brunette type, and among mulattoes the most marked cases of lentigo are to be found. This affection is rarely if ever seen in infancy, but is common in early life. In old age pigmentary discolorations are very common, especially upon the face and hands, but the freckles which come in summer and disappear in winter are not observed at this time of life.

Treatment. Since freckles do not affect the corium or true skin, but result from an increased amount of coloring matter in the deepest layer of cells of the epidermis, it is evident that blistering or any kind of treatment which will remove the epidermis will remove the freckles. But the effect of this treatment is merely temporary, and with the renewal of the epidermis a new deposition of pigment is likely to take place. The tendency to the formation of freckles in certain individuals cannot be remedied, but by avoiding exposure of the skin to the direct rays of the sun in warm weather, the unsightly spots can be avoided to a certain extent. Of the various tan and freckle lotions which have been recommended highly and used extensively my own experience will not allow me to speak in very high praise. One of the following may prove of value as a *placebo* if it does no other good.

℞. Sulpho-carbolate of Zinc, - - 2 parts.
Oil of Lemon, - - - - 2 "
Absolute Alcohol, - - - - 10 "
Collodion, - - - - to 100 "
M. Shake and filter.

℞ Carbonate of Potassium, - - - 4 parts.
Chloride of Sodium, - - - - 2 "
Orange Flower Water to - - - 100 "
M.

White recommends—

℞ Chloride of Ammonium, - - - 1 part.
Cologne Water, - - - - - 15 parts.
Water to - - - - - . 100 "
M.

According to Shoemaker the careful application of a small piece of the ointment of the oleate of copper at night upon retiring will usually remove freckles. The oleate of copper ointment should be prepared by dissolving the salt of oleate of copper in sufficient oleo-palmitic acid to make a soft ointment.

CHLOASMA.

Synonym—Liver Spot.

Chloasma is a yellowish or brownish discoloration of the skin which commonly shows itself in symmetrical patches upon the face. Some writers include under the name chloasma a variety of pigmentary affections resulting from widely different causes, distinguishing them as idiopathic and symptomatic. The term has even been applied to one of the parasitic affections. If we include under the term chloasma both the pigmentation of the skin resulting from the application of a mustard plaster or from persistent scratching, and that which is caused by the internal use of nitrate of silver, Addison's disease or the cancerous cachexia, there is no reason why it should not be made to cover lentigo and nævus. It were better if the term chloasma should be limited in its application to that form of pigmentary disease which is commonly spoken of as chloasma *uterinum*, although it appears in the majority of cases to have no more connection with the uterus than it has with the liver.

The patches of chloasma, limiting the signification of the term as above indicated, are never small and distinct, rarely rounded or elliptical in shape, but usually irregular in form, and with an ill-defined border. The color is not apt to be very pronounced, although in summer the affection is much more noticeable than in winter. The forehead and malar region is the favorite seat of chloasma, and there may be a number of isolated patches of discoloration or one large patch covering the upper portion of the face like a mask. This mask never involves the whole of the skin of this region, but stops abruptly a short distance from the scalp or the eyebrows, and thus leaves some normal skin which renders the patches more unsightly by the contrast which the normal skin affords. The patches of chloasma are less common upon the lower half of the face. Occasionally patches are to be found upon the neck and trunk.

Females are commonly, but by no means exclusively, the subjects of chloasma, and although it manifests a marked tendency in this sex to make its appearance during pregnancy, it is not infrequently met with among childless women and spinsters. Occurring during the months of pregnancy it often disappears quickly after childbirth, but in many

cases it persists for years, though in a somewhat milder degree. It is never observed before puberty and rarely continues after the menopause.

Chloasma results from an abnormal accumulation of pigment in the epidermis, and the nerves which should control the deposition of coloring matter evidently fail to do their duty What the prime cause of the affection may be is difficult in most cases to determine. The dependence of the discoloration upon uterine disease and menstrual irregularity is evident in a small number of cases, but in a large majority it appears to me to be a groundless assumption.

Diagnosis. The affection with which chloasma is most likely to be confounded is leucoderma, the lesions of which are very apt to occur upon the face and neck. In this affection there is an absence of pigment in circular or irregular patches with sometimes an increased amount of pigment in the vicinity. In chloasma there are never any pale, milk-white spots to be seen and the skin has merely a darkened or dirty appearance. With chromophytosis a mistake ought not to occur, as the patches in this affection never appear upon the face, and the surface of the affected skin, though sometimes apparently smooth like that of chloasma, can always be made rough or mealy by simply scratching it with the fingernail or any dull instrument.

Argyria, the bluish or slate color resulting from the internal use of nitrate of silver, differs from chloasma in the large extent of surface which is evenly discolored, and in the fact that the hands as well as the face and neck are usually of a similar hue.

Treatment. In the treatment of pigmentary affections no brilliant results can be hoped for. Indeed, it must be confessed that a result satisfactory to the patient is not frequently attained. If the patient be pregnant she may be consoled by the hope, if not the surety, that a little patient waiting will restore her former complexion. If she be a sufferer from dysmenorrhœa, treatment of this condition may be instituted with the hope, faint as it is, that normal menstruation will be accompanied by a decrease of the discoloration. When general treatment or special treatment for the removal of a hypothetical cause has failed to produce a change in the complexion, the local measures already mentioned in connection with lentigo may be employed. The proxide of hydrogen is the application which, in my hands, has produced the most favorable results. Care must be exercised in obtaining a sufficiently strong preparation and in keeping the bottle well corked and in a cool place. The affected skin may be painted once or twice daily. If a dark camel's hair pencil be used the first effect of the peroxide will be to whiten the hairs of the pencil. If this does not occur it is probable the lotion has lost its strength and will produce little or no effect upon the skin.

CALLOSITAS.

A callosity is a hard and flattened tumor, but slightly elevated above the surface of the skin. It is the result of an increased thickness of the epidermis, and occurs upon such portions of the body as are subjected to friction or intermittent pressure. The hands and feet

are the parts most frequently affected, and naturally those accustomed to manual labor or who wear coarse, ill-fitting shoes are most likely to be affected. A thick and horn-like epidermis is the normal covering of the heel and ball of the foot, and furnishes the natural protection which is usually supplemented by artificial plates of shoe-leather.

In walking the naturally callous portions of the sole should be a help rather than a hindrance, but when as a result of high heels, short or ill-fitting shoes or congenital talipes, the foot is more or less turned or twisted, pressure is exerted upon a patch of soft epidermis which gradually thickens, it is true, but often becomes inflamed and causes no little amount of inconvenience and suffering.

CLAVUS.

Synonym—Corn.

A corn is a callosity of peculiar form which is commonly met with upon the toes. Being the result of pressure it naturally forms upon the skin over the bony enlargement at the end of the first phalanx, and most frequently upon the small toe. Corns also occur over the extremities of the metatarsal bones, upon the soles of the feet and in rare instances upon the hands. Upon the dorsal surface of the toes corns are dry and horny, while between the toes they are kept constantly macerated and appear softer and white.

A hard corn is slightly elevated above the surface of the skin, rounded, flattened and yellowish in hue. The under surface is more or less conical, which fact has given rise to the common idea that a corn has roots.

Treatment. In the treatment of callous patches and corns, two objects should be kept in view, the removal of the cause and the alleviation of the suffering. Narrow shoes are, without doubt, the most frequent cause of corns, and the incalculable amount of distress which they invariably produce in all civilized communities could only be avoided by defying fashion and wearing stout moccasins, or shoes shaped like the feet. Possibly when we arrive at the highest point of civilization our present style of foot covering will be abandoned, but under the present condition of things we can only hope to secure from the modern shoemaker a somewhat less narrow shoe than he is in the habit of making. It is an excellent plan for those suffering from corns and bunions to have a number of pairs on hand at all times so that a frequent change can be made. This will usually obviate the continuous pressure upon a given point and the resulting inflammation. To soften the epidermis various applications may be advantageously employed. Prominent among these are glacial acetic acid and salicylic acid. The former, if applied with care to the horny epidermis and not allowed to get upon the healthy skin, will soften a painful corn or callosity so that the bearer can once more walk with comfort, or so that it can be chiseled out of its bed with little or no pain.

Salicylic acid possesses a peculiar faculty for softening epidermic tissue, and is the chief or sole ingredient of numerous corn cures now in the market. A saturated solution in alcohol applied repeatedly will soften a corn so that it can be readily paired away or dug out

with a curette. An application of salicylic acid in collodion repeated every night will whiten, soften and often cause the disappearance of a troublesome corn or callous patch in a few weeks.

VERRUCA.

Synonym—Wart.

An ordinary wart (verruca vulgaris) is a small, dry and horny tumor most commonly seen upon the hands of children. These growths are multiple and vary in size from a pin-head to a pea. Except when unusually large or inflamed they occasion little or no discomfort. They usually develop quickly, and having attained their full size, persist for an indefinite time. They likewise disappear suddenly in some cases and are entirely gone before the fact of their going is perceived.

The hands, and especially the fingers, are their favorite location, but they may also occur upon the scalp, face and other parts. The common wart may present a somewhat smooth, hard and flattened surface, or it may be considerably elevated above the level of the skin, and present a well-marked digitate surface.

The so-called venereal warts are soft, moist papillary tumors, commonly met with upon the genitals of both sexes. They are apt to be much larger than common warts and sometimes grow to large fungous masses resembling a cock's comb in appearance. They are usually of a bright red hue, sometimes dusky or bluish, and when exposed to the air the surface becomes dry and blackened. In the male they are commonly found upon the mucous surface of the prepuce, and upon the glans penis. In this location they often occasion a phimosis, and their rapid increase in size soon distends the prepuce until it resembles a large ball. When, in such a case, the prepuce is slit up and retracted it is not uncommon to find that a portion of the warty mass has sloughed from its base and is ready to fall out when no longer confined by the foreskin. The remaining masses, crowded and flattened by pressure, give the glans penis the appearance of a small red cauliflower. In the female these growths are usually seen upon the fourchette and mucous surface of the labia. Around the anus in both sexes these warts are often seen among a certain class of patients and frequently mistaken for an evidence of syphilis. The moist syphilitic papules which are common in this locality in an early stage of the disease sometimes present a vegetating or fungous surface, but are usually flattened, and hence called condylomata *lata* in distinction from the non-syphilitic warts which are often spoken of as condylomata *acuminata*. Similar growths may be met with in the umbilical cavity and even in the axillæ, between the toes and wherever the predisposing conditions of moisture and uncleanliness co-exist. They always develop rapidly and under these conditions are not likely to disappear spontaneously like the common warts.

The cause of warts is obscure, and a peculiar disposition to both varieties is observed in many individuals. There is no doubt respecting the contagious nature of acuminate warts,

and it is quite probable that many children contract ordinary warts from the hands of playmates who are affected.

Diagnosis. A typical wart is always easily recognized, but there are certain affections of the skin of a warty or papillomatous nature which the most experienced dermatologists often find difficult to name and classify. These are rare, however, and can be conveniently termed Papilloma.

Treatment. In the treatment of ordinary warts a great variety of remedies have been recommended, from the mildest charm to the severest caustic, and perhaps none of them are absolutely valueless. Of the so-called charms employed by the ignorant, such as dipping the hand in the rain water which has collected in a hollow stump, spitting on the warts successively with an appropriate incantation, etc., etc., a great deal that is interesting might be written. But the one point of practical importance to be noted is that some of these charms do appear in certain cases to work wonders. Leaving out the untruthful and exaggerated reports of their virtues and overlooking the numerous cases in which they utterly fail, there still remain instances in the experience of many persons where a large crop of persistent warts has disappeared suddenly after recourse to one of these vulgar methods of treatment. I have never witnessed anything of the kind myself, but will admit that these supposed cures may not be mere coincidences, but the indirect result of the charm, the attention so firmly directed to a portion of the body having induced a change in the nutritive process taking place there.

Caustics will remove a wart if repeatedly applied, the dead portion being carefully pared away before each application. Acid nitrate of mercury, nitric acid, chromic acid and caustic potassa have each been recommended and successfully used, but glacial acetic acid or a saturated solution of salicylic acid is preferable if the application is to be made by the patient. It is claimed that crystals of chloride of ammonium rubbed upon warts upon the hands will cause their gradual disapearance. All I can say of this remedy is that I have known it to fail.

Thuja occidentalis is a remedy of considerable repute in the treatment of both ordinary and venereal warts. Given internally, I have waited in vain for any effect, but in the form of a tincture applied once or twice daily, I have seen a beneficial action in a number of cases. It gradually lessens the congestion in the case of accuminate warts, causes the epidermis to become dry and friable and in time removes the growth in great part if not entirely. The tincture or fluid extract used should be made from the fresh leaves of the plant and may be applied pure or diluted with water.

The quickest way to remove warts, and in most cases the best, is to scrape them off with a rather sharp curette. The procedure is attended with a little pain, but even a child can be induced to have a number removed in this way at one sitting. The base of the wart should be first scratched or cut with the edge of the curette, when one or two vigorous sweeps of the instrument will quickly remove the growth and leave a circular, punched-out wound. The bleeding which follows is usually slight, and can easily be checked with a bit of

styptic cotton or a drop of carbolic acid, which will also tend to remove any possibility of its return.

The ligation of large warty masses may sometimes be advisable, but unless the base which remains is thoroughly cauterized or scraped, they will speedily grow again. The cutting of a wart is always a foolish precedure, as it only makes it bleed freely and cannot possibly destroy it. Large seed warts upon the fingers may be quickly and thoroughly removed by grasping them between the blades of a stout pair of dressing forceps and twisting them suddenly out of their bed. This, however, occasions more hemorrhage than the use of the curette.

MOLLUSCUM.

Synonyms—M. Contagiosum—M. Epitheliale—Acne Molluscum.

The term molluscum has long been applied to two distinct affections, viz., one about to be described (*Molluscum contagiosum* of Bateman), and one which will be described later in this work (*Fibroma*, or the *Molloscum fibrosum* of certain writers). The affection to which the term molluscum should be limited consists of little soft tumors, varying in size from a pin's head to a small pea, with a constricted base, a central depressed orifice and whitish, curdy contents. They are not of very infrequent occurrence among children, and are as interesting to the dermatologist as they are harmless to the patient. The affection commonly attacks children, and the face and neck is its most common seat. The tumors exhibit a tendency in many cases to congregate about the eyes, and occasionally about the mouth. I have met with them exceptionally upon the scalp, ears and tip of nose. In adults the genitals are the part usually affected, although the mollusca sometimes occur on nearly all parts of the body.

Each individual tumor is of slow development and indefinite duration. It begins as a pin-head sized whitish elevation in the epidermis, with a minute central depression, which becomes more prominent as the growth increases in size. When it is as large as a hemp-seed the summit becomes flattened, the base more or less constricted, the centre of the growth appears whiter than the wall of the tumor, which is usually of normal skin-color, and lateral pressure causes a whitish, cheesy substance to exude. Under the microscope this is found to be composed mainly of peculiar round or oval bodies known as the "molluscum corpuscles." The tumors have usually a waxy, transparent aspect, although, when they have attained the size of a large pea, the walls are often traversed by fine blood-vessels, and present a pinkish appearance. No pain or other subjective sensation accompanies the growth, which may persist for a year or more, never getting larger than a large pea, and finally withering or undergoing a process of destructive inflammation.

In a large proportion of cases the hands of the patient will be found to be the seat of ordinary warts.

The etiology of molluscum is obscure. Its occurrence in several members of one family,

and the fact that it has been observed to affect suddenly a number of children in a hospital ward, have led to a belief in its contagious nature. But this is by no means proven. Although the disease occurs with much greater frequency among the poorer classes, it cannot be considered as the offspring of poverty and uncleanliness. Damp and crowded dwellings may favor its development, and I have known a number of cases to occur in such a locality. Ill health is not always a factor in its production, for while most of the molluscous children I have examined were strumous or weakly, there have been some upon whose faces not even the dirt could conceal the glow of health.

DIAGNOSIS. The diagnosis is very simple, the tumors being so peculiar in appearance that, when once seen and recognized, they could hardly be mistaken when met with a second time. I have seen numerous mollusca upon the face of a young woman, which, on account of their whitish, flattened summits and central depression, bore a striking resemblance, when observed at a distance, to the umbilicated pustules of variola. A mistake in diagnosis, however, could scarcely occur.

Fibromata, when small, might be mistaken for mollusca, and especially as the sebaceous glands in the former tumors frequently contain an accumulation of sebum, which can be pressed out in the form of cheesy threads. They do not present, however, a central depression, do not occur in groups, do not have the plump feeling of mollusca, but, on the other hand, are apt to be quite flaccid, and finally, when multiple, as they usually are, they vary considerably in size, and usually become much larger than mollusca.

TREATMENT. The treatment of molluscum is simple, the object being to remove the excrescence and to excite as little inflammation as possible in so doing. When the mollusca are so situated as to admit of abscission, the most advisable plan of treatment is to shave them off with a razor, or a long, thin-bladed knife, at a level with the surrounding skin. The hemorrhage occasioned scarcely amounts to more than a drop, and it is quickly checked by touching the freshly-cut surface with nitrate of silver. When the mollusca are not seated upon a projecting, or at least upon a convex part, but occur in certain localities, where, especially in the case of struggling children, a knife could not be handled with safety, a pair of curved scissors may be used in its stead. For very small mollusca, nothing more than slight cauterization is required to arrest their growth and to hasten their disappearance. They may be bored very gently with a conical stick of nitrate of silver, or touched with a fine glass rod dipped in strong acetic acid. When a cluster of tumors have coalesced and undergone a process of destructive inflammation, the hard crust should be removed by a poultice or dressing of cosmoline, and a little balsam of Peru applied to heal the superficial ulceration. When a molluscum, however large, is removed, no scar is left, under ordinary circumstances, since the growth is epidermic in character, and can scarcely be said to involve the corium or true skin. When an inflamed molluscum is scratched or irritated to the degree of purulent secretion, a slight pit may be expected to result.

CORNUA CUTANEA.

In medical literature we find many accounts of human horns springing from various portions of the body. These cases create surprise and wonder at first thought, but when we consider that the outer layer of the epidermis, together with the nails, is a natural growth of horny character, we become far less surprised by these unnatural horny growths. The favorite seat of horns may be said to be the head, although there is scarcely a portion of the whole body which has been spared. They have been reported as occurring on the scalp, forehead, temple, nose, cheek, lip, jaw, breast, back, pubes, glans penis, scrotum, præputium clitoridis, thigh, knee, leg, hand and foot. Though usually occurring in the aged, they have been met with in young children. In size and shape they vary considerably, some being short and stumpy, others conical, and many long, curving and somewhat spiral. Rayer mentions the case of an old woman with a conoidal horn springing from the forehead, which was six or seven inches in diameter at the base, and which projected six inches. Nayler speaks of a horn ten inches in length, and curved like a ram's horn. The shorter horns, with a rounded extremity, are usually thicker at the base than those of greater length. The long ones are always curved when a few inches in length, and often twisted. The surface is always rough, and usually ridged transversely. When of a marked horny character the horn may present longitudinal striæ, and show a tendency to split in this direction. The color of a horn varies from a yellowish to a dark brown or blackish hue, and is lighter at the apex than at the base. The consistence of the growth also varies, some horns being soft and friable, and others quite dense. The outer portion is always harder than the inner. The base of a horn, like the base or youngest portion of a nail, is often surrounded with a thin layer of epidermis. When removed, the horn presents a conical cup-like depression, which fits over a fungoid mass projecting above the level of the skin. When cut across, it may be found to be cylindrical or flattened from side to side. Microscopical examination shows it to be composed chiefly of epidermic cells, usually arranged in a concentric manner. The horn may spring from the free surface of the skin, or originate in one of the larger sebaceous follicles. It may therefore be regarded as being either an exaggerated wart, having a soft, pulpy, papillomatous base, surmounted by a cone of dense epidermis, or as being a dried and hardened sebaceous or epidermic mass, which derives its shape from being slowly extruded from a sebaceous cyst. In some cases the nail, especially that of the great toe, becomes greatly thickened and rounded and finally assumes the shape and other characteristics of a horn.

Cutaneous horns develop slowly, and are painless when unirritated. The base may become inflamed from injury done to it by violent movement of the growth. A horn may continue to grow, whatever size it has attained, but the longer it is, the greater is its liability to become accidentally knocked or torn off. When it falls in this way, or is merely cut off on a level with the surrounding skin, the growth is reproduced, and a succession of horns may occupy a given site. Not infrequently two horns take the place of a preceding one.





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CORNUA CUTANEUM.

KERATOSIS FOLLICULARIS.

DIAGNOSIS. The diagnosis of a case is easy when the horn is present. Before the horn has formed or after it has been removed the cutaneous lesion bears a resemblance to a nodule or an ulcerated patch of lupus. The base from which it springs might be mistaken for an epithelioma or malignant growth of some kind. On the lip, indeed, epithelioma has been observed to follow a horny growth.

TREATMENT. The treatment called for in the case of a cutaneous horn consists in not only removing the growth, but destroying the base from which it springs, in order to prevent its reproduction. The horn itself, being frequently quite movable, can readily be torn from the skin with a slight amount of violence, especially when the part has been previously softened. The base should now be scraped with the curette, and cauterized lightly with caustic potassa or the chloride of zinc. This will produce a radical cure, and leave but a trifling scar in the place of the unsightly excrescence. When the horn springs from a distended follicle or cyst, extirpation of this with the horny growth is usually recommended.

ICHTHYOSIS.

Synonym—Fish-skin or Alligator disease.

Ichthyosis is a chronic disease of the skin, characterized by dryness and roughness. It varies in severity from cases in which the abnormal condition of the skin is so slight as to be perceptible to the touch rather than to the eye, to cases in which large polygonal scales or blackened horny projections take the place of the normal epidermis. This variable degree of severity has led to a division of the disease into the forms to which the names xeroderma, ichthyosis simplex, and ichthyosis hystrix have been applied. These terms are convenient for descriptive purposes, but it should not be inferred that xeroderma and ichthyosis are distinct affections. Nor is ichthyosis hystrix to be understood as meaning anything but a peculiar form of ordinary ichthyosis.

In the mildest cases of the disease, very frequently observed in infants and young children, there is a deficiency of the sebaecous secretion as well as of perspiration and a harsh or mealy condition of the epidermis. The skin is a trifle darker than normal, and suggests the idea of a lack of soap and water. In other cases, or in these same cases at a later period, the epidermis becomes hypertrophied, and cracks in a characteristic manner. Small lozenge-shaped or pentagonal scales result, which are slightly raised at their margins. In a more severe or further advanced condition these hypertrophied epidermic plates become darker in color, and assume a yellowish or greenish hue, while the furrows between them appear like a network of white interlacing lines. The plates, though horny and sometimes glistening, are never found lapping one over another, as might possibly be inferred from the name of the disease or its common synonym of "fish-skin disease." In cases of unusual severity one or more patches of skin may become covered with black papillary projections, presenting an appearance which is suggestive of the bark of a tree. These patches are similar to those

warty growths which appear upon the skin in elephantiasis. When these papillary projections, which are always thickly crowded together and usually flattened, become elongated and pointed, the term ichthyosis hystrix has been applied to the condition, from the fancied resemblance of the spines to the quills of a porcupine. Cases presenting this form of the disease have been on exhibition as "Porcupine men."

Dr. L. P. Yandell has reported (*Louisville Med. News*, 1878,) an interesting case of ichthyosis, which was on public exhibition as the "Man-fish of Tennessee." He presented a magnificent example of the form of the disease which has been called Ichthyosis *serpentina*, the resemblance of his skin to the skin of a boa-constrictor being almost perfect. About his joints the skin was loose and wrinkled. Upon the belly and limbs the scales were large and suggestive of the skin of a lizard or alligator. The cuticle was everywhere dry and hard and there was no perspiration. The man was fifty years of age, but being shrunken and withered he appeared like a very old man. The skin of the face was red and shining and tightly drawn about the cheeks, pulling the lower lids down to such an extent as to perfectly evert them and making a horrid case of Ectropion. The fingers and toes seemed shorter than natural and the separation between them extended much further down than usual, suggesting a webbed condition. He was the father of several children, none of whom inherited the disease.

Another striking case of the affection was lately on exhibition in this city under the name of the "Alligator Boy." Two excellent colored lithographs of this child will be found in the *Journal of Cutaneous and Venereal Diseases* (April, 1884). At the Skin Clinic of the College of the Physicians and Surgeons, the following brief notes were taken:

At birth the child weighed four and one-half pounds and presented an ichthyotic condition, which has since increased in severity. When about a year old, the frontal epidermis split vertically in the centre of the forehead and was cast off in two lateral pieces. The hands at this time "looked like those of a ninety-year old man." The boy had never had any of the acute exanthemata, or severe illness of any sort; and in spite of the fact of his spending the most of his time in the close atmosphere of the show room, he was said to be far less delicate than one would judge by his appearance. The muscles of the lower extremities were not at all developed, and he was scarcely able to stand alone. By means of his arms, he would creep across the floor quite readily, and, according to the father's statement, could not only swim like his namesake, but had an uncontrollable desire to get into the water whenever an opportunity offered. He had a good appetite, and was especially fond of fish, oysters, and the whites of eggs. He liked fruit, but ate no meat, and I was assured that his bowels rarely moved oftener than once in two weeks.

The eruption, contrary to the rule in ichthyosis, was most marked upon the trunk, the epidermis being broken, by the movements of the body, into polygonal horny plates of varying size, and of a dirty yellowish hue. In the intervening fissures, the pinkish color of the deeper skin was apparent. The scalp and forehead were also affected in a marked degree. The rest of the face was free from scales, save a slight mealy condition around the nose and





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ICHTHYOSIS.

ARTOTYPE E. BIERSTADT N. Y

mouth, and the cheeks were as smooth and soft as those of any child. The arms were but slightly affected, and the fore-arms, especially upon the extensor aspect, were almost natural in appearance. The legs also were almost free from scales. The parents stated that in winter the skin upon the trunk was smooth, though horny in character. In the spring this horny integument was wont to crack and present the characteristic "alligator" appearance, while the hair of the head was almost entirely shed. In the summer the scales would gradually lessen and the skin become much softer, though by no means normal.

This boy was born in Montreal, in May, 1879, and Dr F. Kennedy, who officiated at his *dêbut*, has kindly furnished me with the following information. The mother was a primipara, and claimed that it was impossible for her to have been more than eight months pregnant at the birth of her child. At four and one-half months (according to her statement to me), she was frightened at the sight of an alligator, and, a few weeks later, by seeing a dog in a fit. A tedious and irregular labor was followed by natural delivery. At birth, the child presented a most extraordinary appearance. The skin was thickly covered with vernix caseosa, and, when washed, the surface was as smooth as if polished, and of a deep red color. In fact, the surface had the appearance of being thickly varnished. There were very few fissures noticeable, and so strong was the coating that it was impossible for the child to make use of its facial muscles in its efforts to cry or suck. Its limbs were also restricted in their movements. After a few days, fissures occurred more especially along the facial lines. On the forehead were two large scales separated along the median line. On the eyelids, cheeks, and around the mouth, armor-like scales were formed. On the back the scales were very thick. There was no healthy skin, as the whole surface was more or less covered with scales. The skin was thoroughly smeared with cod-liver oil, and the same, with iodide of iron, was given internally. Under this treatment considerable improvement was obtained. About the second week the scales loosened and peeled off, and about the fifth week, the skin, with the exception of the face, had become soft and pliable, though still of a deep red color and shiny.

The above case may be regarded as a connecting link, in point of severity, between ordinary cases of congenital ichthyosis and certain cases which have been reported by Kyber, Wheelock and others, as diffused congenital keratoma. In these cases,the integument appears as one immense horny plate, of a dirty yellowish hue, or if this is broken during the delivery of the child, the fissures formed reveal a bright red underlying skin. These cases usually die at birth, or shortly after, and may be regarded as the most severe form of congenital ichthyosis.

Ichthyosis affects the greater portion of the skin. The palms and soles are always free from scales, although the epidermis may be considerably thickened. The flexures of the joints are usually devoid of scales, although abnormal dryness of the skin is always present. Around the elbows and knees the epidermis is broken up into smaller plates, and numerous elliptical wrinkles or folds of skin occupy these parts. The disease usually begins in infancy and never in adult life. In the majority of cases the mild or xerodermatous form tends to

remain through life, while in some instances the affection increases in severity from year to year. It is sometimes hereditary. Two or more children in one family may be affected, while others in the same family show no tendency whatever to the affection. It is attended with little or no discomfort beyond the consciousness, on the part of the patient, that his skin is not what it should be, and it exerts no influence on the patient's general health. Mild cases are often temporarily cured in hot weather, when the perspiratory glands are active, and even the most aggravated cases are considerably better in summer than in winter. In the latter season ichthyotic patients usually suffer considerably from the cold, and when exposed to high winds the face and hands are unusually prone to become chapped and painful.

Diagnosis. The diagnosis of the disease is easy when its extensive distribution over the body, the absence of redness and itching and its chronicity are taken into account. Pityriasis simplex is the only affection to which it bears any resemblance, but in pityriasis the skin is not so generally affected, there is hyperæmia beneath the scales, and these are constantly falling, or are easily rubbed off, while in ichthyosis there is no hyperæmia, and the scales remain upon the skin.

Treatment. The treatment of ichthyosis, or at least its cure, is not easy. The skin may be made quite smooth by appropriate applications, but as soon as these are laid aside, the roughening and scaling tend quickly to reappear. Inunction is the chief remedy in the treatment of mild cases. Cosmoline, vaseline, benzoated lard, almond, linseed and cod-liver oils are useful, and as each accomplishes the object in view, viz., the lubrication of the preternaturally dry skin, it matters little which one is selected. Balmanno Squire thinks that glyceri.e diluted with three times its quantity of water is more effectual than oil in keeping the skin in good condition.

In severe cases, where the epidermic plates are thick and horny, inunction may still be advantageously employed, but greater dependence must now be placed upon soap frictions and constant bathing. Some patches on the extensor surface of the extremities may be so hard as to require blistering. The Turkish bath renders excellent service in all cases of ichthyosis. The profuse sweating is useful, as is shown by the improvement which naturally takes place in hot weather, and the shampooing removes the superfluous epidermis. The body should be thoroughly anointed after each bath. Jaborandi has been given internally in this affection, and has produced a rapid improvement in the condition of the skin, but there are objections to the use, and the Turkish bath is to be preferred.

KERATOSIS PILARIS.

Synonym—Lichen Pilaris.

An accumulation of epidermic cells in the hair follicles produces numerous fine papules upon the surface of the skin, and constitutes the affection known as keratosis pilaris. Ordinarily these are dry, whitish horny elevations, thickly crowded together, and giving the skin

a rough and harsh appearance, but frequently they become inflamed at their base and the skin is then studded with small pin-head sized, conical red papules, each of these is usually perforated by a fine lanugo hair, showing the lesion to originate within the follicles.

The affection is also noticed on the extensor aspect of the extremities. especially on the forearms below the elbows. Frequently the outer aspect of the thighs and buttocks are its seat.

It usually causes no special inconvenience and often exists for years. In certain cases however, the affection becomes quite marked upon the extremities, is accompanied by more or less itching and thus induces the patient to seek medical aid.

The cause of the affection is sometimes a lack of cleanliness or undue attention to the hygiene of the skin. This may be the case when there is a simple accumulation of epidermis in the follicles, but often there is an excessive growth of the epidermis which frequent ablutions do not check. This is almost invariably associated with a general dryness of the skin. The affection is met with in youth and middle age, and is perhaps a little more frequent among females.

TREATMENT. In mild cases of keratosis pilaris daily friction with green soap will suffice to remove the horny prominences and leave the skin comparatively smooth. In cases where a large extent of surface is involved frequent warm baths containing potash or soda, and daily inunction with oil or fluid cosmoline are admirable. The general health should be improved as far as possible, and when a sluggish circulation and inactivity of the sweat glands are noticed the Turkish bath is the best remedy that can be prescribed.

MORPHŒA.—SCLERODERMA.

It is convenient to speak of morphœa and scleroderma together, as there is a kinship between the two affections, and, according to several writers, a pathological identity. But whether they are forms or stages of the same disease or not, a clinical differentiation is generally easy, and until a fuller knowledge of their nature has been acquired, it appears advisable to retain both terms in use.

Morphœa is a circumscribed affection. When first noticed there are usually one or more round or oval whitish patches of skin, with a faintly marked border of a darker hue. When multiple, these patches vary in size, and are usually distributed along the course of a nerve. They increase but slowly in size, and assume an alabaster whiteness or a dull creamy tint, which has been aptly compared to the color of an old billiard ball. They are seldom raised, but, on the contrary, they may be slightly depressed below the surface of the skin, and appear atrophic in character. The surface may be smooth and waxy, or roughened by numerous fine wrinkles, which give to it a peculiar shriveled appearance. Sometimes a patch is quite firm to the touch, although the hardness, when present, is always superficial. On the other hand, it may differ little to the touch from the surrounding normal skin. The narrow border frequently assumes a dull red or lilac hue, and constitutes a conspicuous feature

of the affection. Dark macules of a similar tint are often noted as preceding the development of the small white patches. The affection is most common on the extremities, though met with on the neck and trunk. There is no pain or discomfort produced by the presence of the patches, and after a lapse of years they may tend to disappear spontaneously.

Scleroderma is a diffused induration of a tract of skin and its subjacent connective tissue. The affected part at first becomes stiff, and later assumes a certain density and tension, which is well expressed by the term "hide-bound." The skin itself presents no lesions to the eye, save in some cases a decided pigmentation. The affected part may appear shrunken, but the peculiarity of the affection is best revealed to the touch. There is usually no margin to a patch of scleroderma. The hardness gradually shades off into the surrounding normal skin. Large tracts of skin are often involved by the disease—the whole side of a limb, for example. Like morphœa, it progresses slowly, lasts indefinitely, and in rare instances subsides spontaneously.

From the above brief description a striking difference is seen to exist between typical cases of morphœa and scleroderma. But in some cases the patient presents lesions characteristic of each affection. The diagnosis is consequently uncertain, and the conviction is fostered that the two affections are identical in nature. Both morphœa and scleroderma have been observed more frequently in women than in men. Cases occur infrequently in childhood. No known cause exists, and the patient affected may in other respects appear in average health.

Diagnosis. Morphœa, in its incipient stage, is to be distinguished from scleroderma, which it resembles. The marked change in the character of the skin, apart from its mere loss of pigment, and the partial anæthesia which usually exists, are points of diagnostic value. The whitish anæsthetic macules which sometimes occur in leprosy resemble morphœa, but their nature is generally revealed by the co-existing indications of the leprous diathesis. Scleroderma can hardly be confounded with other cutaneous affections. It should be remarked, however, that there exists an acute affection of the skin, in which hardening of the integument takes place rapidly over a large portion of the body, and disappears in a short time. This must be distinguished from scleroderma, and may be conveniently called sclerialsis or sclerema, the latter of which terms has been usually applied to a similar affection occurring in infants (Sclerema *neonatorum*).

Treatment. Little benefit is to be expected from treatment in cases of morphœa or scleroderma. Under arsenic internally and the local application of the constant galvanic current there seems to be the best prospect of achieving success. The use of the galvanic battery in cases of scleroderma has been followed by very good results. The progress of these affections is slow and the prognosis is uncertain. A marked improvement, if not a perfect cure, is always a possibility, and since the local condition is more or less dependent upon the general health of the patient, nothing in the shape of tonic and hygienic treatment should be neglected.





ELEPHANTIASIS.

ELEPHANTIASIS.

Synonyms—Lepra Arabum—Barbadoes Leg.

Elephantiasis is a disease which is entirely distinct from leprosy. Hitherto much confusion has been occasioned by the use of the terms Elephantiasis Arabum to designate the disease under consideration, and Elephantiasis Græcorum to designate leprosy. These qualifying adjectives have now been pretty generally discarded in this country, and while the term lepra is applied to leprosy, the term elephantiasis is employed solely in connection with the elephantine disease.

This disease consists in a hypertrophic growth of skin and sub-cutaneous tissue, and affects chiefly the lower extremities and genitals. The leg and foot are most frequently attacked. It is unusual for the disease to extend above the knee, and extremely rare for both lower extremities to be wholly affected, as in the remarkable case portrayed in the illustration. Cases have been reported of the disease occurring upon the cheeks, breast and upper extremities. Fibromatous tumors and that peculiar relaxed condition of the skin known as Dermatolysis or Cutis pendula may occur upon those parts and assume elephantine proportions, but they are to be carefully distinguished from true elephantiasis.

The disease is chronic in its course, does not affect the health in any marked degree, and the patient suffers principally from interference with locomotion, depending upon the weight of the affected limb. It is met with in all parts of the world, but abounds in tropical climates, where it attacks by preference those whose constitutions have been impaired by improper diet, excessive exposure and other causes. In the West Indies it is so common that Barbadoes Leg has come to be a well-known synonym.

The disease is intimately connected with conditions which produce obstruction of the lymphatics. Œdema plays a most important part in the production and development of the disease, and recurrent inflammatory attacks of an erysipelatous nature characterize its progress. Each attack leaves the skin more swollen and harder, and the attacks continue at a variable interval until the part affected has attained an immoderate size. The scrotum, for instance, may hang nearly to the floor and weigh upwards of a hundred pounds. In the female the labia and clitoris may be similarly affected. The skin of an affected leg is darkened in color and either smooth and œdematous or fissured and scaly. Its sensibility is lessened by reason of the great thickening, but there are no anæsthetic patches as in leprosy. In severe cases portions of skin become pendulous and deep creases are formed between them. Upon the dorsum of the foot and anterior aspect of the leg it is not uncommon for the skin to present a verrucous surface, covered with dry and blackened papillary elevations. Eczema often appears upon the surface of the skin, and fissures occur at the bottom of the furrows. Slight ulceration is present in many cases, and from the denuded patches a large quantity of lymph is poured out. Sloughing may take place, especially when the strength has failed and the patient is unable to leave the bed.

Diagnosis. Elephantiasis is neither contagious nor transmitted through hereditary influences. Its causes are obscure, but are doubtless connected with the patient's manner of living. Malaria has been cited as a cause, but proof is lacking as to its influence. Varicose veins, cicatrices, gummy deposits, bone callus and other local conditions inducing obstruction of the venous and lymphatic circulation have been alleged to act as exciting causes. A very interesing and plausible theory has been advanced that the disease is of parasitic origin, and that furthermore, the mosquito is responsible for its existence. Dr. Manson, a British surgeon resident in China, has discovered the *filaria sanguinis* in the blood of elephantiasic patients, as also in the blood of patients affected by the so-called lymph-scrotum and chyluria. He believes, with others, that this parasite has its habitat in the lymphatics, and by causing obstruction and distal fullness of these vessels, gives rise to elephantiasis. As in the case of tape-worm ova, the immature *filariæ* can only become developed outside of the human body, and the mosquito is accused of being their intermediate host. In the stomach of this insect the undeveloped filaria is supposed to undergo a metamorphosis, and being discharged with the young of the mosquito upon the water, finds its way into human lymphatics and occasions elephantiasis.

Treatment. The treatment of this disease, though often gratifying, is not always attended with the desired success. In the early stage, rest, poulticing and other antiphlogistic remedies should be employed during the erysipelatous attacks. Later, bandaging is of service, as it tends to lessen, though seldom permanently, the size of the leg. Hebra recommended elevation of the limb and inunction of mercurial ointment. Compression and ligation of the femoral artery have been practiced in a number of cases with partial success. The improvement which follows this method of treatment is due to the removal of arterial pressure, which interferes with the functions of the lymphatics. This pressure being removed, a rapid absorption of the effused serum often takes place, and in some cases the decrease of the infiltration is permanent. When the genitals are affected in a marked degree the knife is the remedy most in vogue, and by its skillful use most brilliant results have been achieved.

ROSACEA.

Synonyms—Acne Rosacea—Gutta Rosacea.

Rosacea is a chronic disease of the middle period of life, occurring upon the face, and resulting from a dilatation of blood-vessels and an increased growth of connective tissue. Its chief features are redness and a tendency to the development of tubercles and pustules. The affection has been described by writers on dermatology as a form of acne, and even those who have believed it to be a distinct affection have generally employed the term Acne-Rosacea. Some writers, in order to distinguish the affection from acne, as should be done, have employed the old but expressive term Gutta Rosea or Gutta Rosacea. Recently rosacea has been disjoined from acne in name as well as in nature, and this usage will doubtless tend to dissipate the erroneous idea that they are forms of the same disease.

ROSACEA.

Rosacea is common in both sexes and is most frequently met with between the ages of thirty and fifty. Its site is characteristic. If the face were mapped out into vertical thirds the middle section would include nearly all cases of rosacea. The parts most frequently affected are those portions of the cheeks below the infra-orbital ridges. In severe cases a fiery triangle may be seen on either cheek, lying between this ridge and the zygomatic minor and labio-nasal muscles. A milder form of the disease often exists upon the central portion of the forehead, just above the bridge of the nose, and at a short distance from the angles of the mouth isolated rosy drops are frequently observed.

The simplest form of rosacea is that which appears in the form of dull red macules or slightly elevated papules, resulting from chronic congestion or dilatation of the superficial vascular plexus around the mouth of a follicle. These "rosy drops" sometimes present a central point of a somewhat darker hue, more elevated and at times surmounted by a scale or the thin crust of a minute pustule. The confluence of these circular "drops" forms a purplish-red patch, presenting a swollen and uneven surface dotted with patulous follicles and somewhat resembling the skin of an orange in texture. As the disease advances the patch becomes studded with tubercles which usually tend to suppuration. The rounded summit of the tubercle assumes a yellowish-white appearance and a minute superficial drop of pus, evacuated when the patient is washing or wiping the face, gives place to a thin, dark colored crust. In many of the tubercles a more decided form of suppuration occurs, and in a case of long standing numerous hemispherical pustules or abscesses are accordingly present. These pustules are not of glandular origin, as in acne, and may be easily distinguished from true acne pustules by their rounded summits and the absence of a central comedo. Similar pustules or small superficial abscesses not unfrequently occur in acne, especially in the indurated form, and are not connected with the sebaceous glands.

Dilatation of the superficial blood-vessels, though commonly occurring in rosacea, is not an essential element of the disease. Where the condition is marked, as it often is upon the wings of the nose, constituting the most striking feature of the affection, the term Rosacea *varicosa* has been employed.

The most remarkable form of the disease is that known as Rosacea hypertrophica. It is a late stage of the affection and occurs chiefly on the nose. The tumid or lumpy condition of the skin which is characteristic of the disease in its common form becomes exaggerated to such an extent that the nose assumes astonishing proportions. A number of tumors project from the sides or tip, varying in size from a large pea to a small egg, and frequently become pedunculated. The nose may attain the size of the fist, and either partially obstruct vision or hang down in front of the mouth. This condition is fortunately so rare as to constitute a dermatological curiosity.

TREATMENT. Rosacea resembles acne, in being largely dependent upon disturbance of gastric and uterine functions. The treatment in most cases consists of a combination of internal and local remedies. To achieve success with the former we must ferret out all predisposing and exciting causes. Abnormal states of internal organs must be rectified. Inju-

rious habits must be abandoned by the patient and strict attention paid to hygienic rules. To derive benefit from local applications it is necessary to determine the amount of stimulation required by each individual case. In mild cases, where there is much irritability and little thickening of the skin, the following lotion may be used while the cure is being effected by internal treatment:

℞ Borate of Soda, - - - - - 5 parts.
Glycerine, - - - - - - 5 "
Rose Water to - - - - 100 "
M.

Where more stimulation is desired the following may be applied to the affected part at night and the powder allowed to remain until morning.

℞ Sublimed Sulphur, - - - - 10 parts.
Spirit of Lavender, - - - - 90 "
M. Shake before using.

When there is marked infiltration of the skin a course of nightly frictions with green soap is of great value. Hard nodules upon the cheeks which remain red for a long time without suppuration can be effectually treated by electricity, the constant current being used for this purpose. Dilated blood vessels may be well scarified, and after the blood has ceased flowing a thick coating of elastic collodion painted over them.

A still better mode of destroying them is to insert a fine needle connected with the zinc element of a galvanic battery, and complete the circuit by touching the neighboring skin with a sponge tipped electrode connected with the carbon element. In the hypertrophic form of the disease surgical treatment is indispensable.

HYPERTRICHOSIS.

Synonyms—Trichauxesis—Hirsuties.

An abnormal increase in the growth of hair may be conveniently divided, according to Beigel, into three classes.

In the first class we have those cases in which the naturally hairy parts, *e. g.*, the scalp and lower portion of the face, become the seat of a growth of hair of extreme length. Many readers may have seen on exhibition in this country several women whose luxuriant growth of hair has nearly or quite reached the floor, and a man whose long sandy beard would have to be lifted to prevent his treading upon it. A number of such cases are on record, as also one of a woman whose pubic hair was several feet in length.

In the second class of cases are those in which the fine lanugo hairs which are present over the greater portion of the skin, become large and moderately long, and transform a man into a hairy animal. This overgrowth of hair may be congenital or acquired. Medical literature records numerous instances of children who have been born with a hairy skin, and the







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ROSACEA.

AUTOTYPE E. BIERSTADT N.Y.

circumstance has usually been attributed to some maternal impression occurring during pregnancy. In certain cases this disposition to hirsuties has been hereditary and transmitted through several generations, and it is noticeable that the excessive growth of hair has frequently been associated with a defective development of the teeth. As an acquired condition a certain degree of hairiness is often noted in adolescence and adult life. While the trunk and limbs of some men appear quite hairless at a short distance, others rival Esau in the abundant growth of hair upon the breast and elsewhere. This variation appears to have no more connection with the general health and strength than has the varying complexion of the skin. A temporary growth of hair over the body has been noted as occurring during convalescence from fever, and the local increase of growth following the congestion of the skin in the neighborhood of an ulcer is very common.

To this class of cases belong the hairy moles (Nævus pilosus), which are always congenital when of large size. In this affection the lanugo hairs over a circumscribed patch of skin are abnormally developed and associated with an increased deposition of pigment.

The third class of cases of hypertrichosis includes the women and children who present an unusual growth of hair upon those parts which in men are naturally bearded. Cases of young children who have had hair upon their face or breast have been reported, but they are extremely rare. The growth of hair upon the female face, on the other hand, is a deformity which is very frequently observed. Few physicians have an adequate idea of its prevalence. In nearly every "museum of living curiosities" a bearded woman figures as one of the chief attractions. There are at least a half dozen of this class now on exhibition throughout the country. Of the number of ladies in private life who endeavor by artifice of various kinds to conceal the unpleasant fact that they have or might have a beard, it would be very difficult to form an estimate. I have no doubt that there are many hundreds of such cases. I speak now merely of those who might raise a thick and long growth of hair which would deserve the name of beard. Of those who have a comparatively moderate growth of hair upon the face, the number is beyond computation. The upper lip is most frequently affected to a slight extent, but the most disfiguring growth occurs upon the sides of the chin. The hairiness may be strictly limited to these parts, but in many cases it is seen also upon the cheeks and sub-maxillary region.

The cause of hypertrichosis is always obscure, and perhaps no more satisfactory explanation can be given of its occurrence, whether in the congenital or acquired form, than the assertion that it is a "freak of nature." I have sought diligently for the cause of facial hairiness in females and have endeavored to find some characteristic common to all of my patients, but in vain. Some are in fine physical condition while others are debilitated. Some are extremely nervous. Some are not so in the slightest degree. Some are stout and others are thin. Some are of dark and others of light complexion. Some are maidens ranging from fifteen to fifty years of age, while of others, who are married, some have children and some have none. The common idea that the growth of a beard in a female is usually associated with masculine traits of character is certainly not founded upon fact, for most of my patients

have presented the very highest type of feminine refinement. That facial hairiness is dependent upon a malformation or imperfect development of the reproductive organs, as some have claimed, appears to me to be very doubtful. It is certain that an intimate relation between these two conditions has not been satisfactorily proven, save in a few exceptional cases.

The relation of facial hairiness in females to derangement of the nervous system is without doubt a much more intimate one. The depressed mental condition which is a striking feature of many cases, and often those in which the hypertrichosis is very slight, I believe it to be not only the result of the annoying growth, but a symptom of general nervous disease upon which the hairiness in all probability depends.

The tendency to the growth of a beard in females, like the congenital form of hypertrichosis, is often found to be hereditary. In a large number of cases I have been surprised to find upon inquiry that the patient resembles her father in appearance, and in some cases has apparently inherited the affection from a paternal grandmother. The paternal resemblance in these cases may be taken as the rule to which there are few exceptions.

TREATMENT. The only cases of hypertrichosis which the physician is likely to be called upon to treat are those in which the growth of hair occurs upon the female face. The depilatory pastes and powders which have been long in use have little if any more effect than the application of the razor. Neither will permanently eradicate the growth. The injection of acid, introduction of hot needles and similar procedures will often destroy the hairs, but not without leaving scars which are even more disfiguring. The use of electrolysis in the manner first suggested by Hardaway, is the best and the only method by which hair can be permanently removed without injury to the skin. The operation has been gradually perfected in this country during the past few years, and constitutes one of the most brilliant achievements of dermatology.

In the destruction of the hairs by electrolysis a sixteen or twenty cell battery is necessary, with a fine needle attached to the negative cord. This is inserted carefully into the follicle by the side of the hair, and the circuit completed by having the patient grasp a moist sponge or electrode attached to the positive cord. Electrolytic action now takes place and destroys the tissue which produces the hair. A stinging sensation is experienced by the patient, the hair becomes loosened in the course of from ten to thirty seconds and may be removed by the gentlest traction of a pair of forceps.

ONYCHAUXIS.

Synonym—Hypertrophy of the nail.

An increased growth of nail substance may produce a uniform thickening of the nail or, as is more frequently the case, a number of ridges, lumps and other surface irregularities. This condition is most frequently observed in the smaller toe nails, which, instead of presenting the appearace of smooth, slightly curving, horny patches, become roughened, thickened and distorted. These deformed nails, when allowed to grow, usually form spiral or

conical masses, with numerous transverse ridges. The finger nails are rarely, if ever, affected in a similar manner. When a normal finger nail is allowed to grow without being cut it evinces a marked tendency to twist and roll when it has attained the length of a few inches, but this condition is not included under hypertrophy of the nail.

An abnormal thickening of the nail substance is commonly the result of a diseased matrix. A constant irritation resulting from pressure or chronic inflammation increases the functional activity of this portion of the skin. With the subsidence of the irritation, a healthy nail substance may again be formed, but in all cases where the matrix has been injured beyond hope of restoration to a normal condition the deformed nail will always continue to grow.

A peculiar form of affection resulting from hypertrophy of the bed of the nail is sometimes called onychogryphosis. The normally thin layer of epidermis immediately beneath the nail substance increases in thickness until it forms a dry mass which raises up the nail from the bed.

TREATMENT. The thickened and roughened nail can be somewhat improved in appearance by the application of glacial acetic acid and repeated scraping, but radical treatment must be adapted to the condition of the matrix. Strapping the nail with adhesive strips or enveloping it in a tightly-fitting elastic cot has been successfully tried. The accumulation of horny epidermis beneath the nail can be softened by means of a wooden tooth-pick dipped in a strong potash solution, and dug out with a fine-bladed penknife. A one per cent. solution of corrosive sublimate should then be frequently applied beneath the nail.

CHAPTER V.

ATROPHIC DISEASES.

The class of atrophic affections includes those in which one or more of the elements of the skin are absent, diminished, or the seat of a degenerate process. As in the preceding class, some of the affections involve the skin proper, some lead to an anomalous pigmentation, while others are characterized by an impaired nutrition of the hair and nails.

ALBINISMUS.

A congenital absence of pigment in the skin is termed albinismus. This may be complete or partial. Among the lower animals the condition is so common as not to excite attention. The white rabbits, white mice and white birds of this climate are all instances of albinism, and in the polar regions an absence of pigment is the rule rather than the exception. This being the case it seems strange that in the human race albinism should occur with perhaps the greatest frequence in regions near the equator. The term "albino" was first applied by Portuguese sailors to the white negroes seen upon the coast of Africa, and it is claimed that absence of pigment is not very uncommon among this race upon their own continent.

An albino of the Caucasian race has a milk-white but otherwise normal skin, a growth of white, fine silky hair upon the head, and an absence of pigment in the choroid coat of the eye, which gives the iris and pupil a red appearance, such as is often noted in a white rabbit. In other respects the physical condition of an albino is normal, and the assertion that mental weakness is associated with the general loss of pigment fails to be verified in a large proportion of cases.

Partial albinism is frequently seen in this country among the southern negroes, and some present the appearance of a piebald circus-horse. The white spot or spots remain through life without change of size or tint. The affection is rarely if ever met with in the white race.





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LEUCODERMA.

LEUCODERMA.

Synonym— Vitiligo.

Leucoderma is an acquired loss of pigment, occurring in spots or patches on various portions of the body. It is a rare affection, occurring generally in the middle period of life, and often in persons who are seemingly in good health. The spots of leucoderma, unlike the white piebald skin of partial albinismus, tend to a gradual increase in size, although in many cases they remain stationary for years, and sometimes there is noted a spontaneous return of pigmentation. The spots are always round at the beginning, become oval as they increase in size, until, coalescing, they form large and irregular patches, of a milk-white color, or slightly roseate hue where there is an active circulation of blood in the part. The skin adjacent to the leucodermatous patch is usually somewhat darker than normal, thereby rendering the affection more striking in appearance by contrast. This increased pigmentation is most marked in a narrow zone, just beyond the advancing edge of the white patch, which it sharply defines. It shades gradually off as it recedes from the patch, and at the distance of an inch or less the skin presents its normal hue.

The affection consists in an abnormal distribution of pigment, that which is taken from the affected patch being apparently deposited in the immediate vicinity. At the outset there are usually a number of small isolated spots, which naturally become fewer as they increase in size and coalesce. The favorite starting-point of leucoderma seems to be the face, neck and hands. From these parts the affection may spread indefinitely, and eventually affect the greater portion of the body. Hebra mentions a case of long standing, in which the white patches had coalesced and covered nearly the whole body, the normal pigment remaining only in small broken patches upon the backs of the hands and feet, the elbows and the face. Dr. T. F. Wood reports an interesting case in a colored woman. She was originally quite black and of pure negro parentage. The white spots first appeared on the backs of the hands and next upon the body, presenting an almost exact symmetry. The original color of the skin gradually disappeared, and after twenty-six years the entire body was free from pigment except the nipples, and there remained a few black patches on the face. Wood reports another case in which the pigment was in great measure restored after leucoderma had existed a few years.

Since the affection is simply due to an absence of pigment in the cells of the rete, it follows that the patch is neither elevated nor sunken, neither thicker nor thinner, neither harder nor softer than the normal skin. In some cases the leucodermatous patches appear to be unusually susceptible to the action of the sun and other external irritants. There is never any desquamation, and to the touch alone, this, unlike the majority of skin affections, imparts no information. The patient suffers no inconvenience, or at least experiences none of the subjective sensations of cutaneous disease, such as pain, hyperæthesia, anæsthesia or

pruritus, and the affection has no influence upon his general condition. When hairs exist upon the patches their growth is unimpaired, although they are usually lighter in color, if not quite devoid of pigment. The affection sometimes affects the scalp.

It is sometimes difficult, in glancing at a case of leucoderma, when the loss of pigment is extensive, to say at once which is the normal skin—the dark or the light patches. A fact to bear in mind is this. The advancing margin of a leucodermatous patch is always rounded or convex, and the edge of the normal skin is of necessity concave. Accordingly, if in a given case where doubt at first glance might exist, it is noticed that the whiter skin has a convex or scolloped margin, it is evident that we have either a patch of leucoderma or partial albinismus, *i. e.*, an affection characterized by loss of pigment; while, on the other hand, should the whiter portions of skin be found to have a concave border, or to be indented, as it were, by the dark patches, it is evident in that case, that the white parts are the normal skin, and that we have a case of chloasma or pigmentary nævus to deal with; in other words, an affection characterized not by loss, but by increase of pigment. At the outset the round spots of leucoderma can be readily recognized as such, but when the skin is affected to such a degree that neither the normal nor the affected skin is greatly in excess of the other, the diagnosis may be difficult. It is simplified, however, when we bear in mind the peculiarity of the development of the affection, viz.: its always presenting a convex or scolloped margin. From partial albinismus, which in the negro race it very much resembles, it can be distinguished by the fact of its not being congenital, but developing in adult life, and from the additional feature of its not being stationary, but usually tending to indefinite extension. In leprosy, circular white patches are met with which resemble leucoderma. They do not result simply from absence of pigment, however, and can be distinguished by the atrophic changes and loss of sensibility.

TREATMENT. Of the treatment of leucoderma not much that is encouraging can be said. By some it is pronounced incurable, and there is difference of opinion among writers as to the spontaneous return of pigment to leucodermatous patches. Arsenic, iron, phosphorus, cod-liver oil, and other remedies likely to exert an influence upon the nutrition of the skin may be tried, with the conviction that they will act as well, if not better, than anything else that might be given internally. Locally, an attempt may be made to lessen the pigmentation surrounding the light patches by painting the dark border with strong acetic acid, or a one per cent. solution of corrosive sublimate, or by blistering it lightly. This will not tend to cure the actual disease, but may lessen the unpleasant contrast existing between the white patch and the surrounding skin, and thus render the affection less striking in appearance. The same result might possibly be attained by applying mustard or other irritants to the white patches, in the faint hope of inducing inflammation, and a subsequent pigmentation, such as is so often seen after eczema and other chronic skin affections.

CANITIES.

Canities is a term applied to a loss of color of the hair, and is the capillary analogue of leucoderma. The greyness or whitening of the hair may be congenital as in all cases of albinismus where it is associated with absence of pigment elsewhere, or it may occur gradually, as it is very apt to in old age. In these cases the canities is general, or at least tends to become so. There are many cases, however, in which the loss of pigment of the hair is partial and limited to one or more circumscribed patches. This may be congenital or develop in youth or middle age. A patch upon the head is usually circular and shows little or no disposition to increase in size. In some cases a portion of the eyebrow, moustache or beard is affected, and as the loss of pigment is frequently unilateral, a singular contrast of the two sides of the face may be presented.

A hair dye is the only remedy for canities, and it is a question in most cases whether the remedy is not worse than the disease.

ALOPECIA.

Alopecia or loss of hair may be complete or partial. In rare instances infants are born without hair and remain in this condition throughout life. It is possible, however, for complete congenital alopecia to give place to a growth of hair as the child grows older. With this failure of hair-growth there is almost invariably a defective development of the teeth. Partial alopecia is far more common than the complete form and is usually acquired. It is a very frequent accompaniment of old age (alopecia senilis) and occurs both as a general thinning of the hair of the head and as a bald patch or tonsure on the vertex which often extends forward over the crown. The loss of hair takes place gradually, without any notable change in the condition of the scalp and is irremediable.

In young persons loss of hair (alopecia prematura) occurs from various causes. Fevers and prolonged and severe illness of any kind are very apt to be followed by a temporary alopecia, which usually disappears in a short time after the restoration of health.

Syphilis is extremely apt to occasion a thinning of the hair in the early stage of the disease, and when a secondary eruption has involved the scalp as well as the body, the baldness is frequently of a peculiar patchy character. The hair loses its lustre and grows thin in spots which give the scalp the appearance of having been partially plucked. This form of alopecia affects the whole scalp and often the eyebrows and lashes. Absolute baldness is rarely seen, and there is usually a tendency to a spotaneous restoration of the hair.

In late syphilis alopecia is extremely rare except as it is directly produced by a tubercular or ulcerative lesion of the scalp. Many writers on syphilis give a perfect description of alopecia areata as occurring in the late stages of syphilis. This affection may undoubtedly

occur in syphilitic subjects, but its dependence upon syphilis is not at all probable in any case.

Premature alopecia is commonly associated with some abnormal condition of the scalp. It is frequently observed to occur after seborrhœa or pityriasis has existed for several years, but in some cases the hair grows steadily finer and thinner without there being any tendency to dandruff. This appears to support the view that the alopecia results from a failure in the process of cornification and not, as many believe, from the accumulation of epidermis in the hair follicles and a consequent atrophy of the hair.

In many cases of premature alopecia, and especially when the affection is inherited from father and grandfather, it will be found that the scalp is drawn so tightly over the crown of the head that atrophy of the hair bulbs must inevitably result. To a certain extent this accounts for the usual development of alopecia upon the top of the head. Ordinary baldness never occurs upon the temporal or occipital region where there is a muscular cushion beneath the scalp, but on the other hand, it occurs only when the hair bulbs rest upon a hard bed, such as the aponeurosis of the occipito-frontal muscle. This also accounts for the absence of baldness among women, who are naturally endowed with a more plentiful supply of adipose tissue beneath the skin, and which in case of the scalp, serves as a soft cushion or bed for the hair bulb and thus exempts them from atrophy. The singular predisposition of men to baldness has been attributed to the constant wearing of stiff hats and the consequent interference with the blood supply of the scalp. But, taken in connection with observed facts, neither this nor any other explanation thus far given will satisfactorily account for the thinning of the hair upon the vertex which so frequently makes its appearance about the age of thirty or forty.

TREATMENT. For the falling of the hair that so frequently occurs after fevers an expectant plan of treatment will usually suffice. The patient, however, is often anxious to do something, and in addition to a general roborant treatment, the following lotion may be prescribed as a capillary stimulant:

℞ Tincture of Cantharidis, - - - 10 parts.
Glycerine, - - - - - 2 "
Cologne Water to - - - - 100 "
M.

The practice of shaving the head, recommended by so many hair dressers, and particularly those who deal in wigs, is seldom if ever of any value. After shaving the scalp the growth of the hair is far more noticeable and hence gratifying to the patient, but as the new hair, after convalescence from fever, will come in just as readily without resorting to this extreme measure, there is no occasion for the use of the razor. In some cases, moreover, the hair of young women will never grow so long as before, if the razor is used.

The alopecia of early syphilis always tends towards a spontaneous cure, but the return of the hair may be hastened by the daily inunction of the oleate of mercury of five per cent. strength. This will also have a beneficial effect upon the papulo-pustular lesions which are



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ALOPECIA AREATA.

frequently scattered over the scalp when the eruption is copious upon the body. Baldness, resulting from tubercular or ulcerative lesions of the scalp, is apt to be permanent, as the hair bulbs are usually destroyed.

When alopecia is associated with dandruff or any inflammatory condition of the scalp, much benefit may be expected from judicious treatment. The falling of the hair can be arrested even if the lost hair cannot be restored. The treatment of the diseased scalp has already been mentioned in connection with seborrhœa, pityriasis and eczema capitis, but frequently a falling of the hair is observed where there is no dandruff. In such cases a great deal can be done by improving the patient's general health, and stimulating the scalp to a healthier action. Anxiety, severe mental excitement, late hours and dissipation of various kinds is a prolific source of alopecia, and if the patient's nervous energy is constantly exhausted through such causes the nutrition of the hair becomes inevitably impaired and the resulting baldness is beyond the reach of any "tonic" or "restorative." When, as is frequently the case, the hair is abnormally dry and the scalp white and pasty in appearance, the daily inunction of a very little oil, with frequent shampooing, will produce a speedy and beneficial effect.

ALOPECIA AREATA.

Synonym—Porrigo Decalvans.

Alopecia areata is a form of baldness which begins suddenly at one or more points, and rapidly produces smooth, white patches of circular shape and variable size. These tend to increase peripherally to a greater or less extent, and often run together in such a manner as to form large irregular patches, or long streaks of baldness. The disease not only attacks the scalp and beard, but also the pubes and axillæ, and in rare instances not a single hair remains upon any portion of the body. It has no relation whatever to ordinary baldness, occurs very frequently in young persons, and may attack those who have naturally a luxuriant growth of hair. It is unaccompanied by itching or other subjective sensations. After a variable length of time a new growth of fine downy hair appears upon the bald spots. This new growth is frequently white at first, but gradually becomes pigmented, and in time no trace of the affection is to be seen. When the bald spots are numerous some will be found to recover far more quickly than others, and in some cases, when the hair is apparently growing normally once more, a relapse may suddenly occur.

Concerning the etiology of the disease, very little can be positively asserted. It appears to be dependent upon a trophoneurosis or functional nerve derangement. A parasitic origin has been claimed for it, but the claim is by no means established. Two or more cases frequently occur in a family, and seem to indicate an hereditary tendency or predisposition.

Diagnosis. The diagnosis of the affection is easy. Trichophytosis of the scalp may bear a resemblance, but in the latter affection the hairs break off instead of falling out, and leave rough, scaly patches, quite different from the smooth, velvety areas of the former. The two affections, however, may co-exist in some cases.

TREATMENT. The treatment of alopecia areata is, to a certain extent, empirical, and the results obtained are exceedingly variable. In some cases there is a tendency to spontaneous recovery, and hair may grow again upon the bald spots in the course of a few months, even without treatment. Indeed, nearly every case will get well in time, but it often requires a long time, one or two years, perhaps, and though, in many cases which recover spontaneously, the credit is unjustly awarded to the remedies employed, it is, nevertheless, certain that judicious treatment tends to hasten a cure. In every case a guarded prognosis should be given as to the time required to effect a cure, Otherwise the result may bring discredit to the physician and disappointment to the patient.

As nervous debility, headaches, and other ills, often precede and accompany the affection, it is important that these be detected and appropriately treated. If the general condition of the patient is not what it ought to be, attention should be directed to this point rather than to the baldness. There is no special internal remedy which can be recommended above others, although on theoretical grounds the various nervine tonics would seem to be indicated. The local treatment consists in epilation of the loose hairs surrounding the bald patch; in occasional blistering of the denuded scalp; in frequent shaving of the new growth of hair, and in the persistent use of various strongly stimulating remedies. Blistering and shaving are remedies highly esteemed by some, but it is a question whether they are as beneficial as they are disagreeable. I have usually dispensed with them, and relied mainly on the use of local stimulants, of which a strong solution of ammonia is one of the most efficient. If the odor of the ammonia is objectionable, a lotion of equal parts of the tincture of cantharidis and bay-rum may be applied morning and night. A host of other stimulating remedies have been recommended, but they all act in the same way. There is no benefit to be derived from changing from one to another, except as it may amuse the patient or curb his impatient desire for a speedy cure.

The following applications have been recommended in this affection:

℞ Castor Oil, - - - - 15 parts.
Carbolic Acid, - - - 3 "
Tincture of Cantharrides, - 15 "
Oil of Rosemary, - - - 2 "
Alcohol to - - - 100 "
M.

℞ Oil of Lemon, - - - - 2 parts.
Oil of Sweet Almonds, - 12 "
Stronger solution of Ammonia, 12 "
Spirit of Rosemary to - 100 "
M.

℞ Yellow Sulphate of Mercury, 3 parts.
Fluid Extract of Nux Vomica, 10 "
Simple Ointment, to - 100 "
M.

℞ Oil of Turpentine, - - 15 prats.
Castor Oil, - - - - 15 "
Tincture of Origanum, - 4 "
Camphorated Oil, - - 30 "
Volatile Liniment to - 100 "
M.

℞ Liniment of Aconite, - - 25 parts.
Liniment of Ammonia, - 25 "
Liniment of Camphor, - 25 "
Liniment of Chloroform, - 25 "
M.

℞ Salicylate of Sodium, - 10 parts.
Carbolic Acid, - - - 5 "
Petrolatum to - - - 100 "
M.

ATROPHIA PILORUM.

As a result of various wasting diseases, such as phthisis, and as the direct effect of certain affections of the scalp, such as seborrhœa and ringworm, the hair often becomes dry, thin and brittle. The growth is checked and the ends of the hair usually split into several filaments. In rare cases a somewhat similar defect of nutrition is idiopathic. The shaft is apt to be flattened, and in a case reported by Duhring, there was fissure of the bulb or portion of the shaft within the follicle.

TRICHOREXIS NODOSA.

A peculiar condition of certain hairs of the beard and moustache has been described by various writers under the name of trichorexis nodosa. As the term implies, the affection is characterized by the appearance of minute nodules or swellings scattered along the shaft of the hair, at which points fracture is very apt to occur. This leaves a brush-like condition of the free extremity of the hair. The affection is a rare one, and little can be said respecting its etiology and treatment. It does not appear to be parasitic in character, and persistent shaving is the only known remedy.

In a case reported by Smith of Dublin, the nodules were pigmented, and the fracture of the hair occurred in the shaft between the nodules.

ATROPHIA CUTIS.

There are two forms of atrophy to which the skin is subject. There is a diffused atrophy or thinning of the skin (atrophia cutis propria), and a localized atrophy which appears in the form of lines (striæ atrophicæ), or roundish spots (maculæ atrophicæ). The first form may be the result of age (atrophia senilis), in which case it is general and associated with wasting of the muscles. The skin, and notably the corium, may become thinner than normal, the epidermis dry and wrinkled, or a process of degeneration may take place, in which case there is more or less structural alteration, an increase of fatty matter and pigment being found. Diffused atrophy may assume the condition which has been described under the head of "glossy skin." This usually attacks the fingers, the skin of which becomes, smooth red and shiny. The hairs are shed, the nails become affected and painful excoriations and ulcers form. The affection is a painful one and is generally the result of some lesion of the nerve trunk.

The localized form of atrophy produces whitish streaks or discs which present a finely wrinkled and cicatricial appearance. Upon the abdomen of women who have borne children these atrophic lines are not uncommon and result from the over-distension of the fibrous portion of the skin. They are likewise frequently observed upon the breasts of those who

have nursed children, but pregnancy and lactation cannot always be cited as a cause of these striæ, for I have observed them upon the breast, abdomen and thighs of young girls as well as in men. Pre-existent obesity may sometimes account for their appearance in the male sex, but often the lesions appear to be idiopathic in their origin. When seen at an early stage the lines are often of a pinkish hue and elevated above the level of the skin, the white and cicatricial appearance being a later development. In this regard the affection bears a strong resemblance to morphœa. Indeed there appears to be an intimate pathological relation between the two affections, and Duhring states that in several cases he has seen well-marked atrophic lines and spots associated with the more characteristic patches of morphœa.

The affection gives rise to no inconvenience and is not amenable to treatment.

ONYCHATROPHIA.

In certain affections involving the greater portion of the skin (notably lichen ruber) a thin and brittle condition of the nails is frequently observed. The same condition often appears without apparent cause and is sometimes hereditary. The surface of the nail loses its lustre, numerous ridges or splits running parallel with its long axis appear, and the free margin and side of the nail become broken and uneven. In some cases numerous dents or pits are seen scattered over the surface.

TREATMENT. When the defective nutrition of the nail arises from a chronic inflammatory condition of the matrix, whether the nail substance be increased or lessened in amount, I have seen a good result follow the repeated immersion of the end of the finger in the following pigment.

℞.	Chrysarobin, - - - - -	10 parts.
	Salicylic Acid, - - - -	10 "
	Ether, - - - - - -	10 "
	Collodion to - - - - -	100 "

M.





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KELOID.

ARTOTYPE E. HIERSTADT N. Y.

CHAPTER VI.

NEOPLASTIC DISEASES.

CICATRIX.

Synonym—Scar.

A cicatrix is a new growth of connective tissue which takes the place of a loss of substance of the corium. A loss of epidermis is replaced by a normal cell growth, but when a portion of the corium or true skin is destroyed by injury or disease, the formation of a scar is inevitable. The margin of a cicatrix is well defined, and its surface is either continuous with the level of the surrounding skin or raised or sunken. Its form is varied, being punctate, linear, discoid or reticular, according to the nature of the preceding ulceration. It is less pliable than the healthy skin and is devoid of hair and glands. Its color is at first light red, but after a lapse of time which varies in different individuals it becomes colorless or remains more or less pigmented. It may be movable over the underlying tissue, or bound down to the fascia or periosteum beneath.

The skin diseases which are superficial in their character, such as eczema, psoriasis and pemphigus, do not as a rule leave scars, although these may occasionally be produced by severe friction of the clothing, vigorous scratching, or by any cause sufficient to injure the corium. In certain vesicular or pustular affections which are more deeply seated, such as zoster, acne and furuncle, scars are frequently left, while in lupus, leprosy and ulcerative syphilis they invariably result from the loss of cutaneous substance.

A cicatrix is composed of dense fibrous tissue, containing vessels, and is covered by a thin layer of epidermis. A tendency to contraction is usually a marked feature of the growth, and when the loss of substance has been considerable and has involved a lax, movable tissue, more or less deformity is apt to be produced by the cicatricial formation. In some cases the motion of a joint is seriously impaired, the eyelids are everted, or the head drawn to one side, while in others an artificial web is formed between the fingers or between the ear and scalp.

Cicatricial tissue may be the seat of eruptions which affect the surrounding skin, *e. g.*, psoriasis, and is especially liable to become the seat of keloid. Neuralgic pain in scars sometimes results from the imprisonment of terminal nerve fibres in the dense tissue.

Treatment. The character of a cicatrix depends largely upon the treatment of the wound or ulcer which precedes it, and judicious surgical measures will often cause a smooth scar to form in place of the puckered or lumpy condition which would naturally re-

sult. Much care should always be exercised in the coaptation of cut or torn portions of skin, and the prominent masses which are sometimes seen in large ulcers should be leveled by the use of nitrate of silver or the actual cautery before complete cicatrization ensues. A scar once formed can never be entirely removed, but a plastic operation will often improve its appearance and lessen its objectionable features.

The deformity resulting from the contraction of a large ulcerated surface, which is especially apt to disfigure the face or impair the motion of joints, can be remedied to a certain extent by the operation known as skin-grafting.

KELOID.

Keloid is a cutaneous tumor which usually develops upon the site of a cicatrix. It results from a new growth of connective tissue, and may affect various portions of the body. It is variable in size, and though usually small, it may in rare cases assume immense proportions. It is generally a single growth, but may occur in the form of multiple tumors, especially when it arises from cicatrices. Its shape is usually oval or irregular, and more or less flattened, and one or more straight or bifurcated processes are seen projecting in every typical case. These have given origin to the name keloid (like the claw of a crab). In some instances the growth rises abruptly from the surrounding healthy skin and forms a plump convex tumor, while in other cases it is reticulated in appearance, from the interlacing of cicatricial ridges. The margins of the growth are sometimes elevated and inclose a central depressed area. Its surface is smooth, of a whitish or dull pinkish hue, and is frequently streaked with a fine network of small dilated vessels. The growth is firm and elastic to the touch, usually tender when pressed upon or squeezed, and in some instances gives rise to severe intermittent pain even when carefully protected. The processes radiating from the growth tend to contract and produce a puckered condition, such as surrounds the cicatrix of an extensive burn. A favorable site of keloid is the sternal region, where it appears as an elongated flattened tumor crossing the median line in a transverse direction. It occurs frequently upon the back and sides and also upon the scalp and face. It is slow in its development, and is never associated with any constitutional symptoms. It neither ulcerates nor tends as a rule to spontaneous disappearance, but after reaching a certain size remains in the same condition for many years.

One of the most remarkable cases of keloid which I have seen was in the Philadelphia Hospital, under the care of Dr. Maury, who gave the following history of the case, together with an illustration in the Photographic Review (Oct. 1878). The patient, a colored man, (formerly a slave), aged twenty-eight years, was above the ordinary height, of large frame and very muscular. His family history revealed nothing from which to trace the cause of his disease. When eight years of age, a small abscess made its appearance on the anterior part of the neck, which, on being opened, discharged an ounce of pus. As the result of this abscess, a well-marked induration followed at the original seat, which gradually extended in

both directions around the neck. After nine years' growth it had half encircled the neck, and was about two inches in width. At this time the growth was removed. The wound healed kindly in six weeks, but the line of the cicatrix was speedily occupied by a hard, rounded ridge, which slowly extended and enlarged.

Eighteen months later an accidental wound was inflicted by an axe on the posterior part of the neck. This wound also presented a hard, nodulated cicatrix, which crept around the neck to join the one in front. Seven years after the first operation it was removed again, at which time it had extended around the entire neck. Three months were occupied in the healing of the wound, which also assumed the same morbid action. At date of report there were thirty-seven tumors of variable size, one resembling, in a marked degree, the ruffles worn in the time of Queen Elizabeth. The two original growths were thoroughly blended, and formed one solid mass, touching at the posterior part of the neck. It measured twenty-eight inches in its greatest circumference and five inches in its perpendicular diameter. It was plicated and had deep fissures separating the folds, from the bottom of which exuded a thin, yellowish, offensive fluid. It was not painful, normally sensitive, and the entire mass could be moved without difficulty, thereby indicating only a cutaneous attachment.

The cause of keloid is unknown. Observation teaches that in the vast majority of cases it develops at some point where cutaneous injury has taken place. The cicatrices of acne upon the back, of boils or carbuncles upon the nape of the neck, of variola upon the face, and of vaccination upon the arm are frequently observed to be the site of keloidal growths. The removal of lupus by scraping has been followed in many cases by keloidal cicatrices, especially in strumous subjects. Purdon reports a case of keloid following psoriasis, and Taylor a case in which numerous keloidal growths developed upon the site of syphilitic ulcers, and occasioned terrible itching at night. Negroes appear to be more frequently affected by keloid than white persons. Whether this is due to a peculiarity of the race or to the fact that their skins are more frequently pitted with variola, scarred by strumous abscesses, and disfigured by the lash, may be a question. The disease is never hereditary. A division of keloid has been made into a spontaneous and a cicatricial variety, the former embracing those cases of idiopathic origin, the latter comprising those which develop upon cicatrices. As it is well known that keloidal tumors of considerable size and attended by pain result from the most trifling injury to the skin, it seems quite probable that every case of keloid is of traumatic origin, and the so-called idiopathic cases have been produced by the prick of a pin or some other insignificant injury of which the patient took little or no notice at the time. The term spurious keloid might be advantageously abandoned or applied to a form of hypertrophic development of cicatricial tissue sometimes met with, and which differs from true keloid.

The name keloid, like many other dermatological terms, has been diverted from its original signification and applied to distinct affections. We hear accordingly of Alibert's keloid and Addison's keloid. Concerning the nature of the latter affection, or morphœa, there is much doubt existing among dermatologists, but one thing is certain, it is not keloid.

Diagnosis. The diagnosis of the disease is usually an easy matter. The firm, elastic tumor, the processes (which however are not invariably present), the puckering of the surrounding skin, the long duration of the growth and the unimpaired health of the patient are characteristic features which will serve to distinguish it from other affections. The diagnosis of genuine from spurious keloid depends, according to writers who make the distinction, upon the idiopathic or traumatic origin. The origin, as has been remarked, is often uncertain and the distinction is unnecessary. It must be remembered, however, that cicatrices often become thickened and lumpy through condensation of tissue and are with difficulty distinguished from keloid.

Treatment. In the treatment of the disease success seems to depend in great measure upon idiosyncracy on the part of the patient. A method which will succeed admirably in one case will fail utterly in another, and caution must be observed in stating beforehand what the result of treatment will be. Excision of the tumor or destruction by caustics usually does more harm than good, as the growth usually reappears even before the wound is healed, and soon reaches a greater size than before the operation. This is especially the case when the growth is progressive. When there has been no increase in size for several years, caustic potash or glacial acetic acid may be cautiously used. I have seen a case of reticulated keloid following variola, which was greatly improved by parallel incisions and the use of concentrated acid. Vidal reports two cases in which scarification alone was productive of benefit. In one case he adopted this treatment with a view to relieve the patient of pain. The scarifications were numerous and made at right angles to each other. After three such operations he was satisfied that a real amelioration had taken place, and by a continuation of the treatment succeeded in nearly curing the disease. An ointment of iodide of lead or of iodide of potassium or elastic collodion may be applied with a certainty of at least doing no harm. Where excessive pain is present hypodermic injections of morphia or anodyne lotions are required.

For the treatment of keloidal acne or the hypertrophied cicatrices which often follow the incision or spontaneous evacuation of small, indolent abscesses in the cheek, Bazin recommended frictions every second day with the oil of cade, and night and morning a teaspoonful of the following in barley water:

℞	Iodine, - - - - -	1 part.
	Iodide of Potassium, - - -	10 parts.
	Tincture of Conium, - - -	100 "
	Water to - - - - - -	1000 "

M.

FIBROMA.

Synonyms—Molluscum Fibrosum. Fibroma Molluscum.

Fibroma is a new growth of connective tissue which may be found in various organs of the body. Occurring in the skin it forms one or more tumors which often vary greatly in size



FIGURA

and appearance. These involve the corium and reticulated subjacent tissue. In all cases they are painless and benignant in character.

The most common and simplest form of fibroma is apt to occur upon the face in adult life in the form of a pea-sized hemispherical nodule of firm consistence. This is most frequently seen upon the side of the nose or cheek and is often spoken of as a "wart" or "mole." Occasionally it is the seat of a growth of coarse and stiff hairs (nævus pilosus).

Another simple form of cutaneous fibroma occurs as a small pouch-like tumor or polypus of the skin which may be flattened or elongated and connected by a pedicle. This growth is usually seen upon the neck, breast or back, and is apt to be more or less pigmented. The sebaceous ducts are sometimes distended and white, cheesy threads can be extruded by pressure. Very small, thread-like appendages are sometimes observed upon the neck of females with a coarse skin, and have been described under the name of Acrochordon.

In a case of multiple fibroma numerous soft and flaccid tumors are scattered over the surface of the body. These vary in size from a pea to a walnut, and produce an affection of striking appearance, although exerting no influence upon the health and general condition of the patient. They are sometimes congenital, increasing gradually in size up to a certain limit, but are generally an acquired growth. In many instances the affection appears to be hereditary and affects two or more members of a family. Some of the tumors may be of a somewhat firm consistence and feel like a split pea imbedded in the skin, but the majority are pouch-like, and pressure with the finger shows that the corium at their base is thinner than elsewhere. In color they differ very little from the surrounding skin.

Occasionally a fibroma becomes large, pendulous and pedunculated. It may occur alone or in connection with the smaller growths already described. The surface of this pyriform tumor may be smooth and white, the skin appearing normal in structure, though stretched by the increased growth of fibrous and areolar tissue beneath. In some cases the sebaceous glands upon the surface are enlarged and the ducts unusually prominent. Its color is usually pale, although the most dependent portion may present a dull red hue, and in some cases become the seat of ulceration. The constricted base is usually of a denser structure and the pedicle is often connected with the deep reticulated layer of the skin.

In certain rare cases the fibrous growth hangs in one or more folds of skin from a broad base and constitutes the affection which has been termed Pachydermatocele or Dermatolysis. This growth differs in no essential respect from the pedunculated tumor, although the corium is apt to be specially involved. It may coexist with a number of small sessile fibromata and is identical in nature, though differing in shape and appearnce. The skin in some cases appears coarse in texture and is slightly pigmented, while in others it is atrophied from tension and appears smooth and fine. The periphery of the growth is generally more dense than the included, projecting portion.

The cause of this affection is unknown. It occurs in both sexes and in individuals whose general condition is good. A stunted condition of both mind and body has been noted, however, in certain cases.

DIAGNOSIS. Small fibromata of firm consistence might be mistaken for sarcomata, but in the latter case the tumors are of a dull red hue and tend to ulcerate. Mollusca are readily distinguished by their central aperture from which curd-like contents may be expressed.

TREATMENT. The treatment of fibroma is not imperative, as the affection usually occasions no discomfort. In a few cases spontaneous involution of certain tumors has been observed. When the growths are small they may be let alone, when large and pedunculated they may be removed by the knife, galvano-caustic loop, or elastic ligature. In the pendulous and especially the plicated form, the liability to erysipelas must be considered before attempting an operation, but such growths have been successfully removed by Mott, Danzel, Bryk, Pollock and others.

XANTHOMA.

Synonyms—Xanthelasma.—Vitiligoidea.

Xanthoma is an affection in which one or more circumscribed patches or small tumors of a yellowish color gradually develop in the skin. The lesions are of a chronic character, and are most frequently observed upon the upper eyelid, near the internal canthus. In this locality xanthoma usually appears as an oval patch which is but slightly, if at all, elevated, and presents the appearance of being imbedded in the skin. As it frequently occurs in women with a dark complexion and dark pigmentation around the eyes, its yellowish hue contrasts strongly with the adjoining skin. One or both lids may be affected, and with the exception of the disfigurement, they occasion no discomfort to the patient. Upon other portions of the body xanthoma is apt to assume a tubercular form, and in some cases small, rounded tumors develop. Upon the palms and soles, and on the flexor surface of the joints the growth usually invades the natural creases of the skin and produces a number of yellowish or whitish lines or streaks. These varieties of the disease may be designated as xanthoma *planum*, xanthoma *tuberosum*, and xanthoma *striatum*.

The cause of the affection is often obscure, but most of those who have carefully studied a number of cases are disposed to connect it with hepatic disease. In a few cases, in which the cutaneous lesions appeared suddenly and gradually disappeared, diabetes was present.

DIAGNOSIS. The affection is readily recognized when it occurs upon the eyelids, and in a well-developed form. The only affection which at all resembles it is milium. In the former case the lesions are flat and evince a tendency to coalesce. In the latter the lesions are isolated, elevated and easily removed from the skin after a slight incision.

TREATMENT. The best plan of treating xanthoma palpebrarum is excision. I have partly destroyed the growth and rendered it comparatively inconspicuous by the use of the electrolytic needle, and would recommend this plan of treatment in cases where the patient objects strongly to the use of the knife. Xanthomatous tubercles upon the body may be excised or left untreated.

NEUROMA.

Neuroma of the skin is a rare affection in which one or more nodules develop and become extremely painful. The few cases reported have occurred in men, and the seat of the affection has been in the region of the brachial or sacral plexuses of nerves. In a case reported by Duhring the tubercles, which were numerous upon the shoulder and arm, were of a purplish color and slightly scaly. The pain, which was absent at first, became excruciating after a few years, and occurred in paroxysms of about an hour's duration. Exsection of an inch of the brachial plexus of nerves was followed by a marked diminution of pain, and a decrease in the size of the nodules.

TELANGIECTASIS.

Telangiectasis is a dilatation of one or more fine superficial blood vessels, and is usually observed upon the face. It is never a congenital affection, and usually develops in youth or middle age. It may exist alone or in connection with other affections of the skin. In rosacea it is generally a marked feature of the disease and is seen chiefly upon the wings of the nose. In erythematous lupus and morphœa the margin of the patches often presents a fine network of enlarged capillaries, while in molluscum and superficial epithelioma the fine red vessels may be seen running up over the abrupt edges of the growth.

In telangiectasis occurring alone the vascular dilatation may be localized or diffused. In the former case it appears as a bright red point or blotch, usually upon the cheek, and is often the result of some slight injury to the skin which may have been long forgotten by the patient. Sometimes the dilated vessels form a minute and elevated tumor, while in other cases there is no elevation whatever, and fine red lines radiate like the legs of a spider from the central point or plexus of vessels (Nævus araneus).

In the diffused form of telangiectasis a portion of skin will present at a distance a dull red hue which, on close inspection, is found to result from an extensive arborization of fine superficial vessels. This condition is often noted on the cheeks of coachmen and others whose faces are constantly exposed to the cold air and wind.

Telangiectasis is never accompanied by any subjective sensation, such as pain or itching. It usually develops slowly and remains for years without undergoing any notable change. In some cases it may disappear spontaneously.

Diagnosis. A red point or patch produced by a dilatation of capillary vessels might be mistaken for an inflammatory affection of the skin, but the absence of heat, pain and swelling is an important diagnostic feature. Furthermore, the chronicity of the red spot and the fine curving or tortuous lines apparent on close examination will reveal the true nature of the affection. Telangiectasis differs from wine-mark in not being congenital and never forming an extensive and circumscribed patch.

TREATMENT. For the destruction of the dilated vessels in telangiectasis several plans have been employed with success. Transverse scarification, repeated if necessary, will usually effect their obliteration, although it is apt to leave faint linear cicatrices. When the superficial capillaries upon the sides of the nose are elevated, as is frequently the case in rosacea, the vessels may be laid open with a fine bistoury and the persulphate of iron in solution or the nitrate of silver applied to the fresh cut. In general, however, the dilated vessels can best be destroyed by means of a fine needle attached to the negative pole of a galvanic battery. This should be introduced, if possible, at the point where the vessel emerges from the deeper layer of skin, although it is often necessary to introduce the needle at several points along the course of the vessel. This operation is not particularly painful and is always effective.

NÆVUS VASCULOSUS.

Synonyms—Angioma Simplex.—Wine-mark.—Fire-mark.

Nævus vasculosus is an affection in which a dark red or purplish patch results from a dilatation or new growth of cutaneous vessels. This is a condition of the skin similar to that seen under normal circumstances upon the vermillion border of the lip. The affection is always congenital or apparent shortly after birth, and in this respect it differs from telangiectasis.

A vascular nævus has usually a smooth surface, an irregular form and a rather sharply-defined outline. In certain well-marked cases the smooth surface is broken here and there by the development of small erectile tumors of the size of a pin's head or a small pea. In the very worst cases the livid patch may be the seat of numerous soft, rounded tumors of variable size which give to the skin a warty or molluscous appearance. These are not congenital, but develop gradually upon a comparatively smooth patch.

The extent of surface involved in vascular nævus varies greatly in different cases. In one case a faint pinkish mark no larger than a quarter dollar may be seen at the edge of the hair upon the occiput or neck, a site where the mildest form of vascular nævus is very common. In another case a red mark of a florid or livid hue may cover one-half or the greater portion of the face and extend down upon the neck and trunk. In one case now under my care a succession of patches of variable size extend from the forehead to the foot, nearly one-half of the left side of the body being affected. The upper portion of the body and the face in particular is unfortunately the favorite site of this affection. Although the red patches may occur upon both sides of the face or body they never manifest any tendency to symmetrical distribution. In the great majority of cases the affection is unilateral, but when bilateral, one side is always affected to a much greater extent than the other.

The color of vascular nævus varies from the lighest shade of red to a dark purplish-blue or slate color. The general tone of a patch or a number of patches in a given case does not admit of great variation, although some portions of the affected skin may be slightly darker

than others. In cold weather a vascular nævus usually appears darker or bluer than at other times, on account of the diminished flow of fresh arterial blood to the part. On the other hand, active exercise or whatever tends to cause cutaneous congestion will temporarily increase the bright redness of the patch.

TREATMENT. Up to a recent date the profession and the laity have shared the opinion that nothing could be done for the relief of patients afflicted with a wine-mark. In most works on surgery no plan of treatment is even suggested for this flat form of nævus, and in spite of the zealous endeavors of a few dermatologists to devise some successful means of removing this common deformity of the skin, it must be confessed that no proposed plan of treatment has as yet met with general favor. Some encouraging results have nevertheless been attained, and it may be confidently asserted that all cases of wine-mark, and especially the worst cases, can be improved by treatment.

To remove a wine-mark by deep cauterization is a simple matter, but the dead white cicatrix which would result from such a procedure would generally be regarded as quite as unsightly as the red patch. The object of every plan of treatment should be the destruction of the blood-vessels with the minimum amount of injury to the skin.

A vascular nævus of superficial character and light color is best treated by mild cauterization of the patch, repeated at intervals until a beneficial effect is produced. This requires time and patience on the part of both physician and patient. The application which is least apt to injure the skin and still capable of lessening the redness in some degree is carbolic acid. This may be applied pure to a portion of the patch and re-applied in a week or ten days, when the outer layer of skin has peeled off and left a smooth surface. It is advisable to apply the acid in the form of a broad stripe running across the patch in such a manner that the effect of treatment may be noted by the subsequent contrast between the stripe and the untreated portions of the nævus. If the acid be applied to a considerable portion of skin some susceptible patients will complain of dizziness or perhaps evince marked symptoms of intoxication from absorption of the acid.

Should this comparatively mild and almost painless procedure fail to produce the desired result of removing the stain, the liquid ethylate of sodium may be rubbed into the skin by means of a glass rod. This will destroy the epidermis and leave a raw surface which becomes quickly covered with a thin blackish crust. A few repetitions of this application, which causes considerably more pain than the carbolic acid, will destroy the redness in great part and leave a cicatricial condition of the skin which is almost imperceptible.

In some cases I have dotted the surface of a nævus with nitric acid, which has the effect of lessening the red color, but is more apt to leave the skin rough or uneven when applied to a large patch. Moreover, if this acid is carelessly handled and an ulcer forms in consequence, the resulting cicatrix may become raised above the surface of the skin and present an unsightly appearance.

Cauterization of the surface of the wine-mark by the means of a double-canvex lens or "burning glass," has been highly recommended as a curative measure. Here again the pro-

duction of ulceration must be carefully avoided. I have never tested this method of treatment, but in one case thus treated, which I saw some years ago, the cheek was covered by numerous keloidal elevations as the result of the solar operations. In one case ef extensive nævus I have known the galvano-cautery to be cautiously used with the effect of partially obliterating the vessels and leaving a smooth surface.

The treatment of wine-mark by linear scarification was proposed by Squire, of London, a few years ago, and on account of the novelty of the method and the positive assertions as to its great value, various dermatologists in Europe and America were led to test its merits. The reports made by these were not at all favorable to the plan of treatment, and so far as I am aware no one but the author of the operation has succeeded in removing a wine-mark by scarification. In my hands it has failed to accomplish the desired result, but still I am not prepared to condemn the operation as others have done, but deem it possible that the failure in many cases reported has resulted from a lack of experience in the performance of the operation, which necessarily requires great care and skill. Possibly the claims first made for the operation were based upon an enthusiastic belief in its value rather than upon a deliberate study of results in numerous cases.

The operation of linear scarification as proposed by Squire consists in first freezing a portion of the affected skin by means of ether spray and then making parallel incisions with a thin scalpel or an instrument composed of a dozen or more blades and called the "multiple scarifier." The cuts should be no more than a sixteenth of an inch apart, and as long as they can be made quickly and straight. The bleeding is slight if the cuts are not over a sixteenth of an inch in depth, and can easily be arrested by applying a piece of blotting paper and slight pressure. This piece of paper should be gently peeled off before it has dried, and in the direction of the incisions. Squire says: "If the little operation be exe-
"cuted cleverly, that is to say, if the skin is well frozen, the instrument exquisitely sharp,
"the incisions made with perfect regularity of spacing and with uniform equality of depth,
"and a special care be taken to avoid any accidental dragging of the strips apart, so that no
"clot is formed in the incisions; if such details be well cared for, it will be found that the
"cuts heal with surprising rapidity and became within a few days quite invisible. The pro-
"cess of scarification must be many times repeated, at intervals of a few days, that is to say,
"as soon as the last cuts are healed. At each operation the direction of the parallels of the
"second operation should be oblique to those of the first operation, and so on. The process
"is a tedious one, but the result of it is highly satisfactory, for the stain is made to disap-
"pear without the production of a scar."

The tattooing of nævus by needles immersed in carbolic acid has been recommended by Sherwell, and I have seen patches lightened in color by this method of treatment. Owing to the difficulty, however, of getting the acid in any amount beneath the surface of the skin this plan will be found much less effective than the use of needles connected with a galvanic battery.

The electrolytic treatment of wine-mark I have practiced during the last five years, and

although I cannot claim that the operation accomplishes all that could be desired, I have repeatedly succeeded in transforming a dark and unsightly stain into a smooth patch of a light pink hue. The object aimed at in the treatment of wine-mark by electrolysis, as in the case of scarification and puncture, is to excite sufficient inflammation to destroy the fine net-work of blood vessels. As the galvanic current is more active and at the same time more manageable than acid adhering to the points of needles, it is not strange that this method should produe the desired effect in the speediest manner and with the least injury to the surface of the skin,

The operation is somewhat similar to that already described in the treatment of hypertrichosis (page 138). A single needle, or a number of needles combined in one instrument, is attached to the negative cord of a constant current battery and inserted into the skin by a quick pressure. The electrolytic action which ensues upon the completion of the circuit serves to destroy to a certain extent the fine plexus of superficial vessels which constitutes the red mark.

ANGIOMA.

The term Angioma is often used as a generic title, applicable to all new growths of blood vessels and lymphatics. As the termination of the word indicates a tumor it would seem more convenient to restrict its application to erectile tumors composed of blood vessels. To this condition the distinctive name of Angioma cavernosum has been applied.

The angiomatous tumor is sometimes congenital but usually develops shortly after birth. During childhood it may reach a sufficient size to cause great deformity and annoyance. It is composed of a net-work of trabeculæ, the interspaces representing dilated blood vessels and freely communicating with each other. The margin of the growth may be abrupt or gradually shade off into healthy tissue. The tumor is soft and compressible, but the blood returns as soon as the pressure ceases. The color of the tumor varies from a dull red to a dark purple in accordance with the arterial or venous character of the contained bloo d.

Angioma may be single or multiple, although the former is usually the case. It is most frequently observed upon the scalp and face. The lips, eyelids and lobe of the ear are affected with especial frequence. The course of the affection is variable. While in many cases the growth remains stationary after having reached a certain age, in other cases it continues to enlarge and sometimes manifests a tendency to become inflamed and even gangrenous.

Treatment. The first step to be taken in the treatment of an angiomatous tumor occurring in infancy is to watch it carefully until a tendency to an increase in size becomes evident. In this case operative treatment is always advisable. If the growth is no larger than a half cherry and the child has not been vaccinated, this operation may be performed upon the surface of the tumor which is apt to be destroyed, wholly or in part, by the resulting inflammation. If the tumor is so situated that constant pressure can be exerted upon it for

several weeks, this plan may be adopted with the hope, if not the certainty, of obliterating the dilated vessels. A more effective plan of treatment consists in the repeated injection of a few drops of carbolic acid by means of a fine hypodermic syringe. When the growth is of considerable size electrolysis may be employed with success, or red hot needles be thrust into the tumor. Ordinary needles may be heated by means of a spirit lamp and used, but the fine loop of platinum wire connected with a galvano-caustic battery is much preferable.

LUPUS VULGARIS.

Lupus is a chronic affection, presenting circumscribed, dull reddish patches of diseased skin, which tend to ulcerate, and invariably leave a scar. Except in its severe forms there is a notable absence of pain, itching and other subjective sensations. The disease runs a variable course in different cases, and presents variations in appearance at different stages. The most characteristic lesion is a small yellowish-red papule, which can frequently be noted at the margin or in the vicinity of a patch. It is not present in all cases. Sometimes the disease begins as a dull reddish macule, which becomes slightly elevated and scaly as it increases in size. This mild or erythemato-squamous form of the disease may occur in one or in several patches of irregular form. It creeps slowly over the surface attacked, and in many cases disappears without ulceration. The cellular infiltration, however, usually produces a certain amount of atrophy of the skin, and being absorbed, leaves a more or less distinct cicatrix. When, as is commonly the case, the disease develops by the aggregation of small, solid papules, the patches usually present an elevated, crescentic and sometimes a scalloped border. Not unfrequently a prominent ridge of infiltrated skin will be seen surrounding a tolerably smooth, and in some cases, a cicatricial center. As the papules of lupus increase in size and become tubercular they evince a marked tendency to soften, and to form small ulcers, especially at the advancing border of the patch. This now will present a reddened and scaly surface, with numerous small crusts near the periphery and areas of cicatricial tissue in the center. When the cellular growth invades the deeper portion of the skin ulceration is likely to occur, sometimes assuming a serpiginous form, and often proving difficult to heal. The face is the favorite seat of the disease, and the cheeks, upper lip and wings of the nose are affected with great frequency. It also occurs on the scalp, trunk, and particularly on the backs of the hands and fingers. The mucous membrane of the oral and nasal cavities may be affected coincidently with the skin.

The disease is never congenital, and rarely, if ever, hereditary. It generally develops in childhood or early life, although I have noted its first appearance in a man of sixty. The sexes suffer with about equal frequency.

Lupus is regarded by some writers as being invariably a cutaneous manifestation of scrofula. It surely occurs in some patients who are far from presenting signs of a strumous diathesis. On the other hand, scrofulous abscesses often lead to an ulcerative process in the skin (scrofuloderma), which surely ought not to be designated as lupus.



LUPUS VULGARIS.



LUPUS VERRUCOSUS.

ARTOTYPE. E. BIENSTADT. N

DIAGNOSIS. The diagnosis of lupus is generally easy, but the tubercular and ulcerative forms of the disease sometimes bear such a strong resemblance to syphilis that nothing but experience in the treatment of the two diseases will enable one to decide as to the nature of the case. The age of the eruption is of the greatest importance in arriving at a conclusion, since the lupus is a disease of slow progress, while the cutaneous manifestations of syphilis develop with considerable rapidity. If a patch of tubercles or an ulcer on the face is of doubtful nature, it may be considered syphilitic if it is extensive and has developed within a few months, while, if it has existed without much change for several years, it is assuredly lupus.

TREATMENT. Lupus is by no means the incurable disease which the majority of physicians think it to be, provided the patient will submit gracefully to the proper treatment. This is simple, though in many cases it is of necessity somewhat heroic. The quickest way to cure the disease is to destroy it, and the scar resulting from treatment will probably be much less unsightly than that which would, in time, result from the ravages of the disease. Scarring, indeed, is inevitable in all cases save the most superficial. These mild cases may sometimes be successfully treated by the employment of vigorous soap frictions, and the application of highly stimulating ointments, but usually more severe measures are required.

In lupus we have a new growth in the skin, which manifests a marked tendency to spread and invade healthy tissue. The main object of treatment must therefore be the destruction or removal of this growth. When taken in its incipient stage this can be readily accomplished. If, however, lupus has increased to such an extent as to involve a considerable amount of tissue, its successful treatment is by no means a trivial matter. Half-way measures are often worse than useless. In very many cases the attempts to heal the ulceration, or remove the nodules by daily cauterization, have only stimulated the progress of the disease. It is better to do nothing than to irritate the part by applications which tend more to inflame the healthy skin than to destroy the morbid growth. At the same time it is not always necessary, and in lupus of the face it is often unadvisable to attempt to remove the growth in a single operation. In treating lupus, our object is not only to remove the diseased tissue, but to do so in such a manner as will occasion the least amount of disfigurement. A relapse of the disease after an operation is considered by some surgeons to reflect discredit upon the operator. But in the treatment of lupus of the face, I think it is far better to remove the greater portion of the growth at the first operation, and to tell the patient that a second or third operation will probably be required, in order to avoid, as far as possible, the production of a disfiguring scar. Of course, if the patient desires the removal of the growth in one operation, this can be accomplished, but in many cases I should not advise it.

Formerly, it was the custom to use the knife freely in the treatment of lupus, and no one can doubt the success which was attained by this method, but the resulting scar was usually large and deep. With the means now at our disposal, it is only in rare cases that we resort to the knife. When lupus invades the lower eyelid, as it freqently does, a plastic operation may be necessary, in order to fill up the gap made by the removal of the diseased tissue; but when no such indications exist, a sharp spoon or curette is an instrument of far less ter-

ror to the patient, and of far greater utility in the hands of the surgeon, than the knife. Whether we have a group of tubercles with an unbroken epidermis, or a patch of ulceration, we can remove the diseased tissue by means of a curette with the greatest ease, and with a slight amount of pain. Unless the patient is aged, or weak, or has very little courage, the growth, if small or of moderate size, can be removed without the use of an anæsthetic. In cases requiring anæsthesia, nitrous oxide gas is usually preferable to ether or chloroform. The scraping operation can be performed much more quickly than excision, and while the nitrous oxide may be safely inhaled for a half-hour or more, a few minutes of anæsthesia is often all that is required, and then much time is wasted and trouble occasioned by the use of ether.

In a number of cases I have resorted to the use of local anæsthesia with good effect. By the use of an ether spray produced by means of a hand-ball, the part to be operated upon can be kept in a half-frozen and almost insensible condition. The spray at the same time washes away the diseased tissue as fast as it is loosened by the curette, leaving the surface clear and thus rather facilitating the operation than otherwise. To one who has had no experience with the use of the curette, the ease with which the morbid tissue can be scraped away is quite surprising. The lupous nodules, although feeling firm to the touch, are much softer than the surrounding skin, and are scraped out of the corium by the employment of very little force. After some experience with this instrument, one learns to recognize the peculiar sensation which is imparted to the touch, when the instrument comes in contact with perfectly healthy skin. Should no steps be taken further than scraping out the morbid growth, a relapse is almost certain to occur, especially if the disease has existed for any considerable time, and has invaded the deeper portion of the skin; it is therefore always advisable to cauterize the raw surface left after thorough scraping, or to apply some powder or paste, which will be likely to destroy the vitality of the lupous cells which may remain. Of the various caustics which have been employed, I have found the appliication of the chloride of zinc to be most efficacious, but the pain which it occasions is a serious objection to its use. The actual or thermo-cautery has been highly recommended, but I have seen lupous nodules reappear so many times after its use, that I cannot recommend it. Pyrogallic acid in the form of a twenty per cent. ointment, I have used as an application after scraping, and with good results. A mixture of equal parts of arsenious acid and gum acacia, made into a paste with a few drops of water, is very beneficial, inasmuch as it tends to destroy only the morbid tissue; but its use is followed by severe pain, which lasts for several hours. When the patch is not of long standing, and is superficial in its seat, the application of iodoform after scraping is the plan which I would recommend. It is painless, and like the arsenical paste, tends to destroy the lupous cells and promotes the speedy healing of the ulceration. If, on the other hand, the growth is of long standing, and the nodules are deeply seated in the corium, the use of a cone of nitrate of silver is, in my opinion, the best adjuvant to the curette. The point of nitrate of silver cone should be pressed firmly in different directions into the small pits left after the removal of the nodules. This procedure will usually serve to destroy the



LUPUS ERYTHEMATOSUS.

foci of the disease, which would otherwise certainly occasion a relapse in the course of a few months.

After the removal of a patch of lupus, by means of the curette and the employment of one of the applications already mentioned, the process of healing is usually speedy, and a tolerably smooth cicatrix will result. A relapse may be looked for at any time during the year following the operation, and should it occur, the morbid growth will appear in the form of one or more brownish-red papules springing up at the edge, or in the midst of the cicatricial tissue. A second operation then becomes necessary. But now it is comparatively a simple matter to dig out these foci of the disease by means of a curette of small size, and to thrust in a cone of nitrate of silver.

Multiple puncture and linear scarification are methods of treatment which have been highly recommended by European writers.

The latter is of the greatest value in cases of lupus of the face, where it is desirable to leave as smooth and non-contractile a scar as possible. A very sharp kidney-shaped knife is most serviceable for the purpose of scarification, and the cuts should be made as close together as they can be made and still remain parallel. The hemorrhage can be speedily checked by the pressure of a wad of absorbent cotton, and the operation can be repeated in a week or ten days, the parallel cuts being now made in a transverse direction. The pain occasioned is inconsiderable if the knife is sharp, but in certain cases it may seem advisable to previously rub the patch with oleate of cocaine, which deadens the sensibility of the skin to a slight extent.

LUPUS ERYTHEMATOSUS.

Lupus erythematosus is an affection closely allied to lupus vulgaris, but commonly regarded as a distinct disease. It is characterized by the superficial character of the cellular infiltration and the tendency to involve the sebaceous follicles. Unlike the common lupus already described, this comparatively rare form does not tend to ulceration, although, when the infiltration is sufficient to produce atrophy of the skin, a cicatricial surface results. The name lupus erythematosus is an unfortunate one, since the common lupus (*L. vulgaris*) is frequently superficial and erythematous, and confusion has arisen from a restricted use of the adjective. The distinctive peculiarity of the variety of lupus now under consideration being the involvement of the sebaceous glands, it would be far better to employ a term such as lupus *sebaceus* or lupus *acneiformis*. Hebra, who first described this peculiar affection of the skin in 1845, gave to it the name Seborrhœa congestiva, but later saw fit to class it as a form of lupus.

The course of the disease is notably chronic. In rare instances it has been observed to attack a large extent of cutaneous surface like an acute eruption, and to be accompanied with severe constitutional symptoms. Frequently injudicious treatment or some other cause may induce a patch of long standing to become acutely congested. Such an exacerbation of

the disease is often coincident with the development of new lesions. As a rule the affection exerts no perceptible influence on the general health of the patient. It is far more likely than the common form of lupus to be accompanied by subjective sensations, such as burning or even a slight itching. The disease usually makes its appearance in the form of small, red, pin-head sized macules, which will not quite disappear on pressure. They present slight depressions in the center, where the sebaceous follicles open upon the surface of the skin, or, as is usually the case, these minute pits are filled with fine, adherent, fatty scales. These characteristic primary lesions may be disseminated or grouped. In the latter case they form patches of a dull reddish or violaceous hue, dotted with numerous whitish points, or covered with fine adherent scales, which, when gently raised, show prolongations from the under surface corresponding to the sebaceous follicles. The patches, of which there may be one or several, are usually sharply defined. They may have an irregular outline, with primary efflorescences scattered about the margin, or be circular in form, in which case they are apt to become depressed as the disease progresses. The disease almost invariably attacks the face. Occurring, as it frequently does, upon the bridge of the nose, and extending laterally upon either cheek, the configuration of the patch is suggestive of a butterfly with outspread wings.

Like the vulgar form, lupus erythematosus is sometimes associated with indications of struma. It is more frequently met with in females, and in this sex is more apt to run a severe course. It does not develop in childhood, as does lupus vulgaris.

Diagnosis. It is often quite difficult to distinguish lupus erythematosus from the superficial or erythemato-squamous form of lupus vulgaris. But since the nature of these two affections is almost identical and a somewhat similar treatment required in either case, the differential diagnosis is not of the highest importance. Still, it is well to bear in mind, that, whereas one affection has numerous white specks, or in some cases minute horny projections upon the diseased surface, the other presents small papules, and at a more advanced stage, tubercles, pustules and ulcers. The age of the patient may furnish a clew, as only the common variety of lupus is met with before the age of adolescence. A patch of chronic eczema of the face, or rosacea, might be mistaken for erythematous lupus, and harm result from the unnecessary use of caustic applications. But these affections have not the sharp border of lupus, and while the former differs in being quite itchy, and perhaps moist at times, the latter may be recognized by the development of tubercles and pustules.

Treatment. In the treatment of this affection, whatever will improve the general health of the patient should naturally be given; it may be iron in one case, cod-liver oil in another, and arsenic, strychnia, or phosphorus in others. The latter drug seems to have a specially beneficial effect in lessening the congestion of the patches and promoting a tendency to the cicatrization which sometimes occurs spontaneously. The internal use of the iodide of starch in lupus erythematosus has recently been recommended upon good authority (Anderson). I must say that I have failed to see any beneficial result in a number of cases in which I have used it, although I regard it as a valuable remedy in combatting the strumous

diathesis. The local treatment is of the highest importance. Frictions with green soap may be at first used to remove the scales and to promote absorption of the diseased tissue. Tar, sulphur, and other stimulating applications may now be used with more or less effect, but a better remedy is the constant application of adhesive mercurial plaster. In some mild cases this will effect a cure. Generally, however, stronger applications are called for. A tincture of iodine of double strength combined with an equal part of collodion, may be used as a varnish, and renewed as often as it peels.

Where the infiltration is deep, a strong solution of caustic potash may be applied to successive portions of the patch. In severe cases the dermal curette may be employed to scrape away the diseased tissue, and the raw surface very lightly touched with the galvano-cautery. When active congestion is present, caustics should be withheld until after a course of soothing applications has put the skin in a less irritable condition. Otherwise, a mild caustic may stimnlate rather than decrease the affection.

The most efficient plan of local treatment which I have tried and the one suited to the greatest number of cases consists in the application of pure carbolic acid.

SCROFULODERMA.

Synonym—Strumo-derma.

The term scrofula or struma has long been employed to indicate a peculiar constitutional disease or condition of the system, which is usually inherited and manifested in early life by the development of certain characteristic symptoms. The term has heretofore had a wide application, and although many affections of the skin and internal organs which were formerly called scrofulous are now regarded as not in the least dependent upon this peculiar diathesis, the term has still a somewhat indefinite meaning, and cannot be precisely defined. The existence of the disease or diathesis cannot, however, be denied, and must be taken into account in the treatment of ordinary affections, which occurring in scrofulous subjects are apt to present a modified form.

The affections, which most frequently indicate a scrofulous habit, and especially concern the dermatologist, are indolent inflammation, and caseous degeneration of the lymphatic glands with the subsequent formation of peculiar cutaneous ulcers. This pathological process is now frequently observed upon the neck of young persons, who often present other manifestations of the scrofulous diathesis. These may be either a thick and doughy, or an abnormally delicate and transparent skin, a tumefaction of the belly and a marked tendency to chronic keratitis, otorrhœa and coryza. In the cervical region, the glands upon one or both sides slowly enlarge and become firm or doughy to the touch. The skin at this time is unaffected and there is little or no pain experienced by the patient. Nor is the glandular swelling attended by the ordinary symptoms of inflammation. After this condition has existed for many months, or perhaps years, a gradual suppurative softening of the glandular tissue takes place, the tumors increase in size and become more or less painful. The skin now

assumes a dull red or purplish hue, and becomes thinner at one or more points until the fluctuating abscess is partially evacuated by the formation of a sinus or ulcer. The discharge which at first is sero-purulent and mingled with caseous matter, gradually grows thinner, and persists for a long time unless treatment is instituted. At last the skin heals and leaves a puckered and disfiguring cicatrix. A number of glands in the cervical chain are often simultaneously affected. At a given time some of these may be discharging or covered by a thin blackish crust, while others are unbroken or completely cicatrized.

Other forms of scrofuloderma have been described in which disseminated pustules resembling acne have developed upon the trunk, run an extremely indolent course, and left numerous circular, depressed or "punched-out" cicatrices.

The cause of scrofula is an inherent tissue debility, which is usually transmitted from one generation to another and is undoubtedly fostered by lack of pure air and proper food and by the consanguineous marriages of affected individuals. In the negro race it is much more common than among the whites. It has been recently claimed that scrofula and tuberculosis are intimately related and dependent upon an infection of the system by the bacillus described by Koch.

Diagnosis. Occurring upon the neck in connection with swollen glands the ulceration of scrofuloderma is readily recognized as such. Upon other portions of the body the scrofulous ulcer which results from an infiltration of the skin by small celled mases of granulation tissue is apt to be mistaken for a syphilitic gummatous ulcer. The co-existing evidences of scrofula, or of syphilis, or a resort to specific treatment must often be relied upon to settle the diagnosis.

Upon the backs of the hands a cheesy degeneration of the skin sometimes occurs as a result of the inherited scrofulous taint, and bears a strong resemblance to lupus vulgaris. There is, however, an absence of the small brownish nodules of lupus, and a marked tendency of the patches to assume a verrucous condition.

Treatment. The internal remedies which have found favor in the treatment of scrofuloderma are cod-liver oil, iodine, especially in the form of iodide of iron or iodide of starch, lime, phosphorus and chlorate of potash. In spite of their undoubted value in certain cases, too much reliance should not be placed upon these drugs to the exclusion of a strict hygienic regimen. Without proper food and plenty of open-air exercise, internal medication will prove of little value.

The local treatment of scrofuloderma consists in the application of ointments or lotions of mercury, iodine or iodoform to the hard and swollen glands, the excision or curetting of softened and suppurating tumors, and the application of iodoform in powder and ethereal solution to scrofulous ulcerations.

SYPHILIS.

Synonyms—Lues venerea—The Pox.

Syphilis is a specific, contagious disease, which is either inherited or acquired during life through the absorption of a poisonous secretion from a person already suffering from the disease. The acquired form invariably manifests itself at the outset by the development of a peculiar lesion upon the skin or mucous membrane at the point where inoculation has taken place. The evolution of syphilis is slow and irregular, often lasting for a lifetime, but in many respects the disease bears a resemblance to the acute exanthemata. It sometimes runs its course in a few years, leaving the patient apparently in perfect health, and although it commonly occurs but once in a lifetime, there are numerous authenticated instances of syphilitic re-infection.

The nature of the so-called virus, or infectious principle of an inoculable syphilitic secretion, is as yet unknown. How it produces the characteristic symptoms of the disease is equally obscure. Various experimenters have discovered by microscopical observation various fungi, corpuscles and bacterial germs which they have thought to be the source of infection, but their views have so far failed to meet with general approbation, and we are forced to admit that we only know the infecting principle of syphilis from a study of its effects.

The blood of syphilitic patients throughout the earlier period of the disease or the secretion taken from the surface of the moist syphilitic lesions is well known to be capable of producing syphilis in a person who has not already been inoculated, provided it is applied to a surface capable of absorbing the same. This inoculation has been performed intentionally with a positive result and the unintentional transmission of the disease in this manner may be studied in very many cases. Upon an unbroken epidermis the blood or virulent secretion may be applied without the production of a primary syphilitic lesion, such as follows successful inoculation. Moreover, the physiological secretions of a syphilitic subject, such as saliva, urine, milk and semen, as well as pathological secretions, such as pus unmixed with blood, appear to contain no virus, and hence may be inoculated without result.

The initial lesion or chancre, which develops at the point of inoculation, is most frequently met with upon the genitals, but may occur upon any portion of the skin or mucous membrane. Extra-genital chancres are not unfrequently observed upon the fingers, lips and within the oral cavity and upon the breasts of nurses. This lesion assumes a variety of clinical appearances depending more or less upon its location, and may consist of a dry or moist papule, or assume the form of an ulcer. In all cases the lesion is characterized by more or less induration of the subjacent tissue which serves to distinguish it from the chancroid or "soft chancre," which is generally regarded as a local venereal sore and incapable of infecting the patient with a constitutional disease. The initial lesion of syphilis appears usually three weeks or thereabouts after an impure intercourse, but this period of incubation may

vary between two and eight weeks. In this respect the lesion differs notably from the chancroid which is commonly noticed within a day or two after inoculation.

Following the development of the chancre the neighboring lymphatic glands become more or less enlarged and indurated within two weeks. One or more glands may be notably affected and readily felt beneath the skin. They are not usually painful and rarely suppurate. About a month later a general engorgement or induration of all the subcutaneous glands may be observed. Those situated in the neck along the posterior border of the sterno-mastoid muscle and those along the inner surface of the arm, together with the inguinal glands can be most plainly felt.

At this time there is apt to occur a group of new symptoms, consisting of a slight rise in temperature (the syphilitic fever), an intense and prolonged headache, a painful condition of certain of the larger joints and an outbreak of a macular eruption upon the skin. During the next few months the macular eruption usually merges into or is succeeded by a papular, pustular or disseminated tubercular eruption or a succession of eruptions may appear upon the skin. With the earliest eruption there is usually a soreness of the throat with perhaps a few erosions upon the soft palate. The arthritic pains are apt to be quite troublesome, espcially at night. The hair of the scalp becomes loosened to a greater or less degree, and often falls in considerable quantity. A month or two later mucous patches are apt to appear upon the lips, tongue or pharynx, and also about the anus. Sometimes these are noted on the sides of the scrotum and the under surface of the penis. An acute iritis occasionally occurs at this period.

All of these symptoms may not be observed in the same patient, but while one suffers especially from eruptions upon the skin, another will complain more of ulceration of the mucous membranes, of falling of the hair or of rheumatoid pains. The general health of the patient is usually perceptibly impaired, although in a majority of cases his usual avocation is not interrupted to any extent. Before the end of six months or a year, especially if judicious treatment has been instituted, the symptoms of the disease usually abate or entirely disappear. But relapses of the various symptoms at lengthened intervals are to be expected for at least another year, although they do not necessarily occur. The cutaneous eruptions gradually loose their disseminate and symmetrical character the farther they are removed from the date of the initial lesion, and the other symptoms become less pronounced in character.

During the next few years, or it may be fifteen or twenty years after infection, a somewhat different class of lesions is commonly observed. These affect not only the skin and mucous membranes, but the deeper connective tissues, the bones and the various internal organs. These later lesions are always localized, hyperplastic or gummatous in character, and evince a marked tendency to destructive ulceration. A somewhat arbitrary distinction is often made between the secondary stage of syphilis in which the lesions are superficial and the tertiary stage in which the lesions are more deeply seated, but it must be remembered that superficial cutaneous lesions often occur very late in the course of the disease, while in

certain cases (galloping syphilis) the most severe symptoms, including affections of bones and internal organs, are met with a few months after infection. Still it is often convenient to make certain divisions in the course of syphilis, and the following stages or periods will generally be found to correspond to the natural history of the disease.

1. *Period of Inoculation.* From the absorption of the virus to the appearance of the chancre.
2. *Period of Invasion, or "Second Inoculation." Primary Syphilis.* From the development of the chancre to the outbreak of constitutional symptoms.
3. *Period of Efflorescence. Secondary Syphilis.* From the appearance to the disappearance of symmetrical eruptions, and other indications of blood-poisoning.
4. *Period of Decline. Tertiary Syphilis.* From the cessation of symmetrical manifestations *ad infinitum.*

For a complete description of the various eruptions occurring in the course of the disease, the reader is referred to the author's work entitled "Photographic Illustrations of Cutaneous Syphilis."

TREATMENT. In a large proportion of cases, syphilis will run its course and leave the patient in a healthy condition, even though no special treatment is instituted. This is proven by the number of men and women in ordinary health who have contracted the disease and recovered from it without being conscious of the fact. While a weak constitution and habits of dissipation tend to aggravate the symptoms of syphilis and predispose to certain evils which are apt to follow in the train of the disease, a sound constitution and careful attention to the fundamental laws of health will enable most syphilitic patients to recover in time without recourse to any specific treatment. Considerable stress should be laid upon this point since it is a too prevalent idea in the professional mind that a certain routine treatment by drugs is absolutely essential in the cure of this disease, and too much reliance is often placed upon the action of certain specific remedies. These are of value beyond a doubt but they are not indispensable.

The treatment of syphilis varies according to the stage of the disease and the character of the symptoms. In most cases it will be found advisable to combine constitutional and topical remedies.

In primary syphilis we have the initial lesion or indurated chancre to deal with, and the question arises, "Can constitutional infection be prevented at this early stage of the disease?" If the view of Bumstead and others is held, viz., that the initial lesion itself is already an evidence of constitutional infection, the question must be answered in the negative. But if, on the other hand, we accept the doctrine taught by Otis and others, viz., that the chancre is a local disease which only infects the system through the medium of the lymphatic vessels after a lapse of several weeks, it must be admitted that its complete destruction at the very outset and before the nearest glands are involved, would save the patient from constitutional disease. The experience of many observers for many years has shown that the most thorough cauterization of a hard chancre does not afford immunity from constitutional infection. A complete excision of the indurated mass on the other hand has

apparently succeeded in a small proportion of cases in affording this desired immunity. But as the efficacy of this measure is still an open question, it cannot be recommended, and ought not to be attempted save in those cases where an unmistakable hard chancre is seated upon a redundant prepuce, in which case circumcision would be advantageous, even if it failed to prevent the constitutional manifestations of the disease.

The propriety of administering mercury in the primary stage of syphilis is another point upon which syphilographers differ. Since in many cases there is a doubt as to the true character of the lesion it is often advisable to wait until this important point is settled by the outbreak of constitutional symptoms. The delay is never productive of any serious harm, while the administration of mercury at this stage may prove unnecessary in case of a doubtful diagnosis of the lesion. Moreover, the premature use of the drug tends to postpone the evolution of the secondary symptoms, modifies their character, so that they are not readily recognized, and often leaves the patient in anxious doubt as to whether he has really had syphilis or not. This condition of mind may interfere with matrimonial prospects, may render a nervous patient hypochondriacal and not infrequently prove worse than the disease itself. The belief that the administration of mercury at this stage does harm I cannot accept, and in a case where there was no possible doubt as to the genuineness of the initial lesion, and where it seemed probable that the patient would remain under observation for several years I should advise, in the interest of the patient, the early institution of specific treatment.

Topical applications in the treatment of chancre, *i. e.*, an indurated chancre, are often unnecessary. The lesion is rarely productive of any physical discomfort, and may often be left to run its course and gradually disappear. It ought never to be cauterized since this procedure is both painful and unprofitable. Calomel or iodoform may be sprinkled over the surface if this is abraded or ulcerated, and the lesion should be kept scrupulously clean. The induration of the chancre and neighboring glands will often disappear more speedily if a five per cent. oleate of mercury is rubbed into the skin, but the result is not always worth the time and trouble.

In secondary syphilis we have to deal with a group of characteristic symptoms which indicate a condition of systemic poisoning. Active measures are now usually demanded by the patient, whatever the physician's views may be respecting the sufficiency of expectant treatment. At this stage it is advisable to adopt a combination of internal and topical treatment, which experience has shown to be of great value in controlling the severity and hastening the course of the various symptoms, and in preventing, to a certain extent, the subsequent occurrence of undesirable sequelæ. The internal treatment consists mainly in the administration of such remedies as are believed to have a specific action in the cure of the disease, and of these mercury has long held a prominent position. The following propositions embody the result of my own study and experience in the use of mercury:

I. *In the Medicinal Treatment of Syphilis, Mercury is undoubtedly our most Valuable Remedy.* The beneficial results which follow the judicious employment of this drug are

such as to convince any unprejudiced observer as to its eminent virtue. As, probably, no reader will differ with me on this point, no argument is necessary.

II. *Mercury is an Overrated Remedy.* The fact that a remedy will do much is no indication that it will accomplish everything that may be desired of it. Mercury will lessen the manifestations and shorten the course of syphilis in most cases, but it will not always produce a speedy and beneficial effect, as many physicians have been led to believe. Some of the worst cases of syphilis which I have observed in my practice have ocurred in patients to whom I gave mercury persistently for one or two years, and I must admit that in these cases I have fallen into the prevalent error of overestimating the curative action of the drug. If the profession generally were more strongly impressed with the great value of hygienic and tonic measures in the treatment of syphilis, and were less inclined to confide solely in the specific action of mercury, I am convinced that their patients would receive a far greater amount of benefit. We all know that remedial agents of little or no power often acquire a fictitious value by reason of the fact that patients improve during their administration. This *post-hoc* fallacy is rarely thought of in connection with the administration of mercury in syphilis, because we know that the drug is not inert, and have ample proof that it can and does accomplish a great deal; but it is well to bear in mind that the improvement which takes place in our syphilitic patients when treated *secundum artem* is not wholly the effect of the mercury which has been administered, but is due in great part to the existence of a natural *vis medicatrix.*

III. *Mercury is not Essential to the Cure of Syphilis.* This disease is one which, like the other exanthematous affections, tends to run its course. It may be severe, and in rare instances it terminates fatally. But in the majority of cases of the acquired form it is a far less malignant disease than it is commonly supposed to be, and when the patient is of sound constitution and the infection is not of unusual virulence, it usually runs its course without producing any permanent damage to the health of the patient. I have treated for two or more years without mercury several patients who expresed an objection to the use of the drug, and I must say that they apparently did as well as other patients treated in the usual manner. Some will claim that these patients will be very liable to suffer from severe lesions in later years, but of this I have strong doubts. Indeed, I have seen so many hale men of advanced years who have certainly had syphilis in their younger days and received no specific treatment, that I cannot believe that a cure of the disease is dependent upon the use of mercury.

IV. *The Internal Administration of Mercury is preferable to Inunction, Vapor Baths, or Hypodermic Injection.* I am decidedly in favor of the use of mercurial ointments and lotions for the local treatment of cutaneous symptoms, but for the cure of the constitutional disease a somewhat extended trial of mercurial inunction has led me to abandon it as possessing many objectionable features and few advantages. It is but just for me to say that my experience with vapor baths and hypodermic injections has been very limited. The advantages that have been claimed for them, as also for inunction—viz., that they do not

occasion irritation of the intestinal tract—are arguments in their favor to those who employ mercury internally in large doses; but they possess no advantage over the method of internal treatment which I shall presently recommend, and certainly cannot claim the merit of simplicity.

V. *The Amount of Mercury usually given to Syphilitic Patients is unnecessarily large.* From the time when the beneficial effect of mercury was estimated by the pints of saliva which dribbled from the patient's mouth, there has been a constant tendency towards a diminution in the dosage of this drug. At the present day it is considered the proper thing to give as much mercury as the patient can bear without showing symptoms of salivation, and, as nearly every writer on syphilis gives explicit directions for the treatment of salivation, it is a just inference that this undesirable effect of mercury is occasionally met with in their practice. While I admit that certain patients are far more liable to become salivated by mercury than others, and that in iritis and under certain other conditions it may be deemed advisable to "push" the remedy, I must assert my belief that in the vast majority of cases of syphilis the very best effects of mercury may be obtained by the employment of doses which will not involve the slightest danger of salivation.

There are many patients who will take a tablespoonful of a remedy when a teaspoonful has been prescribed by their physician, on the absurd principle that if a small dose does them good a larger dose will produce a corresponding amount of benefit; and there are many physicians who seem unable to disabuse their minds of the fallacious idea that within certain limits the curative effect of every drug is in direct ratio to the amount which is administered. I have no faith whatever in the administration of mercury in infinitesimal doses, but my experience has led me to the belief that a daily half-grain or grain of blue mass, or the protoiodide of mercury in divided doses, will do quite as much if not more good than the grain and a half or two grains daily which is the more common dosage.

VI. *In the Internal Use of Mercury its Local Irritant Effect should be avoided.* This can be accomplished by a reduction of the size of the dose, and its more frequent administration if necessary, and by the employment of milk-sugar triturations. Regarding the choice between metallic mercury and its numerous salts I am not prepared to speak. My own preference is for the protoiodide, which, given in the form of a trituration and in the doses which I have commended, will rarely be found to occasion gastric or intestinal disturbance of any account. In the latter stage of syphilis I have followed the custom of changing from a mercurous to a mercuric salt, from the green iodide to the red iodide, *e. g.*, but, as the proto-salts are less irritant in their local action, I see no good reason why the green iodide should not be continued throughout the course of the disease. In my own experience I have never observed any benefit result from a combination of various salts, as recommended by Bumstead, or by a frequent change from one preparation to another.

VII. *The Duration of Mercurial Treatment should vary according to the Severity of the Case.* When syphilis began to be described, at the close of the fifteenth century, its very worst forms were naturally observed and reported. The severest cases soon came

to be regarded as a type of the disease, and in our text-books of the present day the description of syphilis rarely corresponds with the average case in practice, but is mainly a description of the severer and comparatively uncommon phase of the disease. There are cases of mild syphilis, and there are cases of severe syphilis, and, although I do not coincide with M. Diday in his opinion that mild syphilis does not demand mercurial treatment, I do protest against the common practice of treating all cases of syphilis upon a routine plan. Who would think of venturing upon the unqualified statement that scarlet fever should be treated for so many days or weeks? No one! And yet we find many writers on syphilis laying down the absolute rule that the disease must be treated during a certain specified number of months or years, without even hinting that for various reasons one patient may not require so much treatment as another.

When I say that there are cases of scarlet fever so mild as to require no treatment, the statement passes without objection; but when I hint that syphilis may occur in a mild or benignant form, I hear expressions of dissent on all sides. From the text-book rises that horrible phantom of possible syphilis, and the awe-stricken beholder exclaims, "Oh! the idea of applying the term benignant to a disease which may eat into the bones, cause paralysis, blindnsss, or sudden deafness, or carry away the nose of the patient!" The question is not whether the disease is always benignant, but whether it is commonly benignant. There are cases of syphilis which demand two years, or perhaps five years of treatment, but it seems to me to be utterly unreasonable to fix a certain time as the duration of treatment for all cases. When the early symptoms of the disease are slight, and disappear speedily under treatment, I deem it quite unnecessary to continue the use of mercury for two or three years, with an idea of thoroughly eradicating the disease, and thus preventing subsequent manifestations. The late lesions of syphilis may and frequently do occur after a prolonged and thorough administration of mercury. I doubt if they are more likely to appear in those cases in which mercury is given merely with a view of removing the symptoms of the disease in its early stage.

My own practice is to give mercury in every case during the existence of any symptoms of the disease, whether it occurs early or late. In the early period I continue the use of mercury for six months after the last symptom has yielded, and I do this partly in deference to the opinion of eminent authority and the commonly accepted teachings. I then stop the administration of the drug and await further developments. If symptoms reappear, I resort again to the use of mercury, and continue it this time for two or three months after their disappearance. In late syphilis I give mercury for the purpose of subduing symptoms which may occur, and stop its use as soon as I have accomplished this result. In so doing, I believe I am practicing in accordance with the old adage "enough is as good as a feast."

It is a prevalent belief among authoritative writers that iodide of potassium has no actual curative effect in the treatment of syphilis, but merely the power to cause the disappearance of certain symptoms, and, furthermore, that it has little or no value in the early stages of the disease. I dislike to differ in opinion from the weight of authority, particularly when

I have no convincing proof to bring to the support of my own views, but I must express my belief that iodide of potassium, though inferior to mercury, has still a curative effect upon syphilis, and that in the early stage it is an invaluable therapeutic agent in the relief of certain symptoms. Mercury in secondary, and iodide of potassium in tertiary syphilis, is the teaching and practice of many physicians. For my part, I believe that there is no stage of the disease when both remedies are not calculated to do good. In many cases of chancre characterized by a massive induration I give iodide of potassium, and apparently with the effect of reducing its size. In the stage of efflorescence I must admit that the drug has little or no effect upon the cutaneous manifestations. Still, if it be true, as has been claimed, that the administration of the drug causes an increase in the number of blood corpuscles, it has the same claim as mercury to be ranked as a "tonic remedy." In one or two cases of extensive mucous patches, with ulceration of the lips and tongue, I have seen a rapid disappearance of the lesion follow the administration of iodide of potassium when mercury had been taken by the patient for several weeks with little or no effect. But it is in the cure of the cephalalgic and arthritic pains which are so commonly associated with the first outbreak of syphilis that iodide of potassium displays its remarkable power, and I am at a loss to know how these symptoms are alleviated by physicians who believe in withholding the drug until the advent of gummy tumors or late ulcerations.

Of the great value of the drug in late syphilis I need not speak. I will venture, however, to remind the reader that its power is often exerted in a most brilliant manner when its administration is preceded by a short mercurial course. I can recall cases of syphilitic orchitis in which the drug has seemed to have very little effect. Mercury has been substituted for it, and still no marked change has followed. But, upon resuming the iodide of potassium after the mercury, the swelling of the testicle has lessened with surprising rapidity. In order to ascertain the effect of either drug, I deem it advisable to give mercury and iodide of potassium separately. It is more instructive to the physician to follow this plan, although the "mixed treatment" may be equally beneficial to the patient. The iodide is best prescribed, I think, in an aqueous solution, a cubic centimetre containing a gram, or a minim representing a grain of the drug.

Iodide of potassium is a remedy which no patient ought to be compelled to take for any length of time. It does its work quickly or not at all, and when unnecessarily continued is sure to do harm. This is especially true in those cases in which immense doses are administered. It is undoubtedly true that a five-gram dose will sometimes accomplish a result when four grams would produce no effect, and even larger doses may sometimes be required; but for every case of syphilis which I have seen benefited by immense doses of the iodide I have seen at least two cases in which the large doses have done harm. Several physicians have told me of cases of syphilis in which the symptoms were frightful to an extreme degree, and could only be kept in abeyance by the continued administration of immense doses. I may say here, what I thought unnecessary to say to them, that my own experience prevented my placing faith in the correctness of their representations. I cannot believe that

there are such cases, and I am sure that in some instances the symptoms of iodism have been mistaken for the effects of syphilis. In one or two hospitals I have seen wretched creatures dying slowly from the combined effects of syphilis and heroic doses of potash, and have often thought that, if the amount of money paid out for this drug had been expended in furnishing a decent beef-steak or a little pure country air, the chances for the patient's recovery would have been vastly increased. I do not deny the value of large doses of the iodide of potassium in certain cases, but I protest against the continuance of such doses when nothing but harm results.

Iron is a remedy which, in the treatment of syphilis, is of very great value. Though rarely mentioned by syphilographers as being specially adapted to the treatment of this disease, it deserves, in my opinion, to be ranked with mercury and iodide of potassium. I will not claim for it the antidotal or directly curative effect which is usually ascribed to mercury, nor assert that it has any marked influence upon the outward symptoms of the disease; but its power to combat the anæmia which is invariably present in the early stage of syphilis renders it a most valuable adjunct to mercury. I usually prescribe it for patients presenting a chancre, or initial lesion of syphilis, and give it as a routine remedy during the period of efflorescence, or so-called secondary syphilis. I believe that it not only elevates the tone of the system, and thus renders it more capable of resisting the syphilitic attack, but that it also tends, in a slight degree at least, to lessen the probability of subsequent manifestations. In the weakened state of the system which is so often associated with late syphilis, the value of iron is too well known to require even a mention, but in the early stage of the disease its value appears to be unknown or unappreciated, and I cannot but lament the prevalent belief that in early syphilis the whole duty of the physician is simply to give mercury. The tincture of the chloride of iron is the remedy which I usually employ, and I would recommend it, not only for its tonic effect, but for its efficacy in counteracting the slight diarrhœa which often results even from very small doses of mercury. A daily dose of ten or fifteen drops of the tincture will usually suffice to produce the latter result, and seems to me to be preferable to the common custom of combining an opiate with the mercurial.

Cod-liver oil is a remedy which is not unfrequently of service in the treatment of syphilis. When an individual with a decidedly strumous diathesis becomes infected with this disease, its symptoms are apt to be severe and prolonged, and their amenability to the ordinary mercurial treatment is greatly lessened. Indeed, in these scrofulo-syphilitic subjects the administration of mercury sometimes fails to produce a beneficial effect, and if pushed to any extent is liable to do harm. The use of cod-liver oil, alone or in connection with iodine, is more likely to be productive of good results in these cases. It often prepares the patient for a systematic mercurial treatment, which would not be tolerated if employed at the very outset. In late syphilis, of an ulcerative type, I have repeatedly seen mercury fail to do good at first, while after the administration of the oil for a month or more it has accomplished all that could be expected from its use.

Limited space forbids a discussion of the hygienic measures which are of value in the

treatment of syphilis, but I would remind the reader that in many cases an over-indulgence in alcoholic drinks and other habits of dissipation, improper food, and lack of out-door exercise, have produced a condition of mind and body which complicates the syphilis, and for which mercury is not a specific. Teachers of medicine strive to impress upon the minds of pupils the necessity of treating the disease, and not merely its symptoms. Were I able, I would impress upon the mind of every physician the duty of treating the patient, and not simply his disease. In the use of anti-syphilitic remedies I am certain that we shall achieve the best results if we do not become absorbed with the idea that we are treating a patient *with syphilis*, but bear constantly in mind the important fact that we are treating *a patient* with syphilis.

LEPRA.

Synonyms—Elephantiasis Græcorum.—Leprosy.

The leprosy of the present day, occurring in Oriental countries and elsewhere, undoubtedly afflicted the children of Israel in the time of Moses. The Scriptural account of the disease, however, as recorded in Leviticus, is for the most part unintelligible, and it is probable that at the time when it was written a number of chronic and contagious affections were confounded with true leprosy. In later centuries this mistake has been repeatedly made, and the numerous leper-houses established throughout Europe at the time of the crusades, doubtless contained a large proportion of syphilitic, psoriatic and other patients. In glancing at the history of leprosy, we find not only a confusion of diseases, but a confusion of names. Suffice it to say that the term Elephantiasis Græcorum is now discarded, and the term Lepra (unfortunately applied by some writers to a form of psoriasis), is generally adopted in Germany, France and America as the synonym of leprosy.

True leprosy is now met with not only in distant parts of the world, but also in our own country. Wherever found the disease presents the same general characteristics. In Egypt, where it doubtless originated, and where it has prevailed for several thousand years, it still occurs. In Syria, India, China and Japan, it is quite common. In Europe it is endemic, chiefly along the shores of the Mediterranean and in Norway, although occasional cases are met with from time to time in many of the larger cities. In the West Indies and portions of South America it is also common, and in the Sandwich Islands it has increased rapidly in recent years and now affects a large proportion of the native population. The island of Molokai has been set apart as a home for the leprous subjects of the kingdom, and several thousand cases have been admitted to the asylum which was founded there in 1865. Coming nearer home, we find the disease existing among the Chinese in California, among the Norwegians in Minnesota, among the French and negroes in Louisiana, and among certain French Canadians in New Brunswick and Nova Scotia.

During the past ten or fifteen years there have constantly been from one to a half-dozen or more cases of leprosy in the hospitals of New York City, while other cases have been re-





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LEPRA MACULOSA.

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ported from Boston, Philadelphia, Baltimore and other cities. Most of these cases have occurred among sailors or others, who have spent considerable time in the tropical countries where leprosy is common and there contracted the disease. In New York there has occurred but one case in a person who had not been outside of the State, and in this case the origin of the disease could not be explained.

There are three forms of leprosy based upon the predominance of certain lesions or symptoms, viz. : the *tuberose*, the *macular*, and the *anæsthetic*. Frequently both macules and protuberances co-exist in the same patient. Anæsthesia in greater or less degree is rarely absent in advanced cases, but it may occur, as the sole cutaneous lesion, neither macules nor tubercles being present. In some text-books but two forms are described, the macular and the tubercular.

Like syphilis, lepra is a constitutional disease, the cutaneous manifestations of which, though highly interesting, are of but secondary importance. A gradual decline in health usually precedes the earliest characteristic indications, which may be faint brownish patches of discoloration or small aggregated tubercles. In case of tuberose leprosy the first unmistakable signs are usually seen upon the face. Tubercular thickening invades the lower half of the forehead, and as the tubercles increase in size and become tuberous, the patient's face assumes a very characteristic leonine expression. The nose and ears are very apt to be the seat of similar protuberances.

The nerves undergo a remarkable change in lepra, the larger trunks of the extremities, as well as the finer branches supplying the skin, becoming thickened and degenerate. The ulnar nerve, in particular, can usually be felt enlarged and hardened. The fingers and toes and other portions of skin supplied by these affected nerves suffer as a natural consequence. In an early stage of the disease they are hyperæsthetic, but as changes in the nerves progress, they become numb and almost lifeless. Ulcers form, which are healed with difficulty. In severe cases the bones of the extremities become carious, and one by one the rotting phalanges fall off and leave disgusting stumps. The tubercles upon the face and elsewhere develop slowly, and though generally permanent, they sometimes decrease in size and disappear by absorption. New ones in greater number usually take their place, and the disease goes from bad to worse until the strength of the patient fails.

It is an extremely difficult matter to determine beyond all doubt whether leprosy spreads only through hereditary transmission or only through direct contagion, or in both of these ways. The disease is considered by many who have had the best opportunities for studying it, to be hereditary in some cases, and at the same time capable of being propagated through inoculation.

The theory that leprosy may originate from certain endemic influences, such as climate, diet, etc., does not appear to have a very substantial foundation. When the disease once becomes prevalent in a community where vice, ignorance and filth abound, it usually tends to increase, but it is far from being a highly contagious disease, as is commonly imagined. Physicians and hospital nurses need have no hesitancy in caring for leprous patients, pro-

vided the ordinary precautions are taken which are usual in the treatment of syphilitic patients. The fear of the disease ever spreading through an intelligent community appears to me to be without foundation.

The opinion that leprosy results from a germ or parasite to be found by careful microscopical examination in the affected tissues is one which is now held by many eminent authorities. This germ is known as the "bacillus lepræ." The rod-like micro-organisms are found in the cells of a leprous neoplasm but not in the blood of leprous patients.

Diagnosis. The diagnosis of a case of leprosy is more or less easy, according as the disease is more or less developed. In an advanced stage, its peculiar features proclaim the diagnosis at a glance, but in its incipiency it may pass unsuspected for months or years, especially when met with in a country or region where it does not prevail. The earliest symptoms are usually a gradual loss of strength from no apparent cause, chilly sensations, vague pains, and numbness of the extremities. Later the disease is characterized by the development of numerous brownish patches upon the extremities, nodules above the eyebrows or about the ears, and tracts of anæsthetic skin particularly on the hands and feet. The diseases with which leprosy might be most readily confounded are syphilis, lupus, leucoderma, scleroderma and morphœa; but the features of a case, if at all well marked, will usually proclaim its nature as soon as the diagnosis of leprosy is suggested.

Lepra *tuberosa* may bear a resemblance, at first glance, to tubercular syphilis, the forehead being a favorite seat of either disease. But the infiltration of the skin in leprosy is more diffused, the protuberances are of variable size, often larger in the center of the patch, and always of a dull, bronzed hue. The syphiloderm in this locality presents small, hard tubercles of a brownish-red color, arranged often in a circular or crescentic form, tending to ulceration and sometimes enclosing a smooth area. Lepra *maculosa* may simulate leucoderma, both in form and color, but the patches in the former are never perfectly smooth as in the latter affection.

Treatment. Leprosy is a disease which is commonly regarded as practically incurable, since there is no remedy or plan of treatment which can be adopted with the certainty of restoring the patient to perfect health. And yet many cases improve to a greater or less extent under treatment, and some have been reported in which an apparent cure of the disease has been effected. My own experience in the treatment of this disease, though a comparatively limited one, has convinced me that judicious measures will ameliorate the condition of the patient in a marked degree, and I am by no means disposed to admit that the disease is an incurable one.

The first step in the treatment of leprosy is to remove the patient, if possible, from the locality in which the disease has been contracted. Hutchinson has reported the case of a woman whose parents had always resided in England, and who contracted the disease in a severe form during a twelve years sojourn in Jamaica. She became apparently free from all symptoms after her return to England, and during a period of twenty years there was no return of the disease, and the woman considered herself perfectly well. A mere change of





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LEPRA TUBEROSA.

residence could not be expected to effect a cure, since leprosy is known to run its course to a fatal termination in almost every climate; but a change of diet and habits is doubtless a factor of far greater importance. In this case Hutchinson attributed the cure mainly to a cessation of a diet composed largely of unwholesome fish, which in leprous countries is supposed by many to be an active cause of the disease. The next step is to place the patient under the best hygienic conditions, and to treat the symptoms of the disease on general principles. Where ulceration of the extremities has taken place, the sores should be kept scrupulously clean, and dressed with some slightly stimulating application, such as balsam of Peru. For the pain, which is usually annoying in an advanced stage of the disease, morphia may be given. Stretching of the ulnar nerve under anæsthesia has been resorted to in some cases of leprosy, with a view to restore its functions. The operation seems to have produced at least a temporary benefit in a considerable number of cases. The thickening of the nerve has been lessened, and the anæsthetic portions of the skin supplied by it have been restored to sensibility. As regards internal treatment, many remedies have been vaunted, but as yet no specific has been found. There are certain balsams and oils, which, if used for a length of time, produce a favorable change in the condition of the patient, though it cannot be said that they will always cure the disease. Chief among these are gurjon balsam and cashew and chaulmoogra oils. The former is used by British surgeons in India and other tropical localities, with good results. For internal use, an emulsion is made of equal parts of the oil and lime water, and administered in half-ounce doses, twice daily. As an external application, the oil is mixed with three parts of lime-water, and with this the whole body is thoroughly rubbed. Under this plan of treatment patients in an advanced stage of leprosy improve in health, the ulcers heal, the tubercles soften and disappear, and the anæsthetic parts resume their sensibility.

Chaulmoogra oil (expressed from the seeds of gynocardia odorata) appears to be the most efficient remedy which has been used in the treatment of leprosy, although it has seemed to have little or no effect in certain cases. One patient with macular leprosy who was under my care for about a year improved steadily under daily drachm doses of the oil. The brownish patches upon face and trunk entirely disappeared, his general health improved, and at last report he claimed to be entirely free from all evidence of the disease, save the contraction and numbness of the fingers. One case of macular leprosy in a boy of nine, which I had the repeated opportunity of seeing, manifested a considerable degree of improvement under an ordinary anti-syphilitic course of treatment.

The prognosis of leprosy, as is evident from the foregoing, is unfavorable. In the tubercular, which is the most grave form, death is usually expected to take place within three to nine years after the first symptoms of the disease are noted. Very frequently pyæmia sets in, and carries of the patient with unexpected suddenness. The macular or the anæsthetic form of the disease may develop gradually, and exist for a long time without any marked impairment of the patient's health. Twenty-four years has been fixed as the extreme limit of the disease by physicians who have had the opportunity of observing it where it is endemic.

RHINOSCLEROMA.

Rhinoscleroma is a rare disease which has been observed in Europe, but not, as far as I am aware, in this country. The essential features of the disease, as the name implies, consists in an induration of the nose. This induration begins in the form of flattened nodules or circumscribed patches which are usually seated at the anterior nares. They are smooth, of normal color or of a brownish hue and sensitive to pressure. They gradually increase in size, and involve both the mucous membrane and the skin of the nose and a portion of the upper lip. In time the nose becomes transformed into a hard, rigid and flattened mass of tissue, the nasal passages being diminished in size or completely obstructed. The growth exhibits no tendency to softening or ulceration, although fissures may form at the base of the alæ nasi, and become covered with a crust.

The cause of the disease is unknown. Its course is a chronic one and apparently independent of any constitutional condition. The unsightly deformity which the growth produces and the impeded respiration are the only symptoms of which the patient is likely to complain.

TREATMENT. The disease will not yield to any treatment short of cauterization or partial excision, and even this plan has usually been followed by a subsequent return of the growth to its former condition.

EPITHELIOMA.

Synonym—Skin Cancer.

The term cancer implies a malignant growth which tends to invade and destroy certain tissues (notably the cutaneous and glandular), which is prone to recur after excision, and which induces a peculiar diathetic condition frequently ending in death. Epithelioma is one of the least malignant forms of cancer, and develops primarily on a cutaneous or mucous surface.

Like other affections of the skin, epithelioma presents a variable appearance in different subjects, in different parts of the body and at different stages of its growth. Four clinical forms may be described, viz., a superficial, a rodent, a deep-seated and a papillomatous form. These forms or phases may present themselves in a single case as successive stages in the progress of the disease.

The superficial form appears at first as a small, roundish, slightly elevated patch of colorless infiltration. It may remain in this condition for three or four years, scarcely noticed by the patient. Slowly one or more flattened papules of a yellowish-white or waxy hue are developed, forming a rather prominent and dense growth, usually of circular or oval form. Arriving at the size of a three or five-cent piece the central portion becomes depressed, while the border remains smooth and glossy or assumes a nodular aspect. Frequently the growth is composed of three or four nodules grouped so as to resemble the crown of a molar tooth,





EPITHELIOMA.

with fine blood-vessels running between them, and ramifying in the central depression. When superficial ulceration develops a thin scab in this central pit, the growth bears some resemblance in form and appearance to a well-developed vaccine vesicle.

The rodent form, *i. e.*, a rodent ulcer, may begin, as has been intimated, in the center of the superficial, button-like epithelioma, and, by extending in depth and circumference, gradually convert this into a circular, polygonal or irregular ulcer with a sharp-cut border, an elevated, indurated and flattened margin, and a clean glazed surface. By the growth of dense waxy nodules at the periphery, and the necrosis of the inner surface of the wall, this ulcer increases in size, and in a few years becomes as large as a silver dollar or larger. It is remarkably slow in its growth, and may exist for fifteen or twenty years without affecting the general health of the patient, or involving the neighboring lymphatic glands. The rodent epithelioma often originates in an insignificant "pimple" or "wart," which becomes scratched or injured, and forms a blackish scab. This, when removed, discovers a small ulcer of trifling appearance, but which shows little tendency to heal. If, under treatment, it cicatrizes, it is only to break out again and to form a larger sore. This ulcer may be annular, and inclose an island of cicatricial tissue, or crescentic in form, or serpiginous in its character, creeping over the surface and leaving a superficial scar in its track. The induration is so superficial as not to be always readily distinguishable, destruction of tissue seeming to keep pace with the new growth.

The deep-seated or infiltrating form of epithelioma may follow the superficial or rodent form, and its clinical features will depend upon its location. When the eyelid is attacked the disease usually begins as a superficial nodule. In a few years or sooner the whole palpebral opening becomes affected, and the disease assumes a rodent form. Destructive ulceration may now attack the conjunctiva and quickly destroy both lids and eye. Indeed, the disease often progresses in depth, attacks the bones of the orbit, and produces a most frightful cavity. A similar destructive process sometimes ensues when the disease is situated near the nasal orifice or the oral commissure. When the infiltrating form begins as such, which is usually the case upon the lower lip, there is developed a hard tumor of pea or marble size, slightly elevated above the surface. It is at first movable, but later adheres to the subjacent tissues. This tumor is almost invariably single, and eventually becomes an ulcer, through necrosis of the central portion of the mass and the formation of an abscess. It usually runs a more rapid course than the rodent ulcer, and differs from this form of epithelioma chiefly in its tendency to implicate adjacent glands. The papillomatous form is uncommon, and may be regarded as a peculiar warty development of the superficial or rodent form.

Epithelioma usually attacks the face, thirty per cent. of all cases appearing upon the lip. It occasionally occurs upon the genitals, particularly in the male, and may occur elsewhere. The superficial or rodent form occurs usually about the eyes and nose, while the favorite seat of the infiltrating form is the lower lip. On the scrotum the growth is at first superficial, but soon progresses in depth. On the glans penis, and especially the coronal portion, the superficial or papillomatous form is most apt to occur, frequently with swelling and indura-

tion of the lymphatic vessels of the dorsum penis. Epithelioma usually occurs in patients over fifty, but it may occur before that age. Seventy-five per cent. of cases occur in males. In old persons subject to epithelioma, a peculiar atrophic whiteness of the skin over the temples is sometimes observed, with various indications of degeneration, such as numerous small specks of xanthelasma and patches of seborrhœa covered by horny and blackened scales. The etiology of the disease is obscure, and in most cases neither patient nor physician can assign any reasonable cause for its development. In a small percentage of cases a family history of cancer can be traced. Local irritation undoubtedly acts as a predisposing causes but its influence has been overrated. For instance, the term smoker's cancer has been used as a synonym for epithelioma of the lip, and where a patient, as is frequently found to be the case, has for years performed his daily labor with pipe in mouth, the name might seem to be warranted. But other men smoke constantly at their work and do not have epithelioma, while the disease frequently attacks women, and men who never smoke. In like manner the chimney-sweeper's cancer, or epithelioma of the scrotum, occurs in countries where the construction of houses is such as to furnish no occupation for this class of laborers.

TREATMENT. The treatment of epithelioma usually demands prompt and active measures. When the disease is evidently increasing in extent by involving adjacent tissue, there should be no temporizing. The earlier the patch can be destroyed the better, and it is as well to destroy the healthy skin at the margin of a small patch as to allow the disease to invade and destroy it. When progress is very rapid, the immediate removal of the diseased part, or its complete destruction by means of a powerful caustic, is the only treatment worthy of being considered. As to value of tonics, good food and fresh air, I need not speak, as no one will doubt their indirect influence in lessening the spread of the disease, and in augmenting the beneficial effects of an operation. But while internal treatment may be advantageously employed to put the patient in the best possible condition before attempting to remove the growth, no time should be lost in the endeavor to eradicate it by internal medication whenever it evinces a disposition toward active growth. The question as to whether internal medication can possibly have a direct effect upon the growth of epithelioma is *sub judice.* Although the results following the use of most of the anti-cancerous remedies which have enjoyed a widespread though transient reputation, are either disappointing or delusive, it by no means follows that a specific remedy, or one acting as decidedly as does quinine in intermittent fever, may not exist. The majority of writers agree in rejecting the idea that any direct influence can be exerted on epithelioma by the use of internal remedies. A certain number of experienced physicians claim, on the other hand, that the disease is amenable to internal treatment. Neligan, who describes the rodent form of epithelioma under the head of lupus *devorans*, lays stress upon the importance of administering iodine, iodide of potassium and cod-liver oil in small doses continued for a length of time. He regards the employment of topical agents as auxiliary to the constitutional treatment, which he claims should engage the chief attention of the physician. I have not such confidence in the efficacy of these drugs, but in cases where the patient objects to the use of the knife or cautery, I would



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SARCOMA.

ARTOTYPE E; BIERSTADT N. Y.

advise the administration of the remedies mentioned, or preferably arsenic, in small and long-continued doses. Fowler's solution might be advantageously used both internally and externally, since in some cases of epithelioma with slight ulceration, healing has been observed to follow a daily penciling of the sore with ten to twenty drops of the solution (Anderson).

In the use of caustics in epithelioma failure and even harm often results from an insufficient application of the caustic, through fear of going too deeply, or occasioning too much pain. The growth, instead of being totally destroyed, merely becomes inflamed, and is stimulated to a further increase in extent. As a rule the burning must be thoroughly done or not at all. The choice between the knife and caustic depends upon the extent, location and character of the growth, when there is no whim or prejudice on the part of the patient. When the growth is large, it is usually advisable to scrape or excise as thoroughly as possible, and to apply the deliquesced chloride of zinc to the raw surface, especially when fears are entertained of a recurrence of the disease. When the growth is superficial, one or two applications of a caustic paste will answer the purpose. Hebra's arsenical paste (arsenious acid, one part, red sulphuret of mercury, three parts, and cold cream, twenty-four parts), though a painful application, acts merely upon the diseased tissue, sparing the healthy skin. It should be applied on a piece of linen, and allowed to remain twenty-four hours, being renewed if necessary. Marsden's paste is prepared as follows: To equal parts of arsenious acid and powdered acacia add sufficient water to moisten and make a thick paste. This is to be spread over the cleansed surface of the part to be destroyed, and covered with absorbent cotton. A slough forms, dries, and falls in a week or more. As a rule, the best caustic is the one with which the operator is most familiar. I prefer the caustic potassa, either solid or liquefied. This forms a blackish slough, small or large, as is desired. Its action can be readily checked by applying vinegar or dilute acetic acid. The pain resulting is not very severe, and quickly ceases, having this great advantage over the arsenical paste. An ointment of pyrogallic acid (20 per cent.) applied as a paste has recently been highly recommended.

The removal of an extensive epithelioma, occurring upon the lip or elsewhere, frequently involves a plastic operation to restore the lost parts. In such cases the knife is far preferable to caustics, as the removal of the disease and the restoration of the part can be combined in one operation.

SARCOMA.

Sarcoma is a malignant growth which commonly involves the lymphatic glands primarily, and only appears upon the surface of the skin as a metastatic form of the disease. In certain cases, however, it has been observed as an idiopathic cutaneous affection. In these cases a number of small tumors varying in size from a pea to a marble, make their appearance upon various portions of the body. They are at first discrete, of a tolerably firm consistence, and present a smooth, raised surface. In time they become larger and flatter, and the central portion is more or less depressed. When two or more develop in close proximity to one another, they often manifest a tendency to coalesce.

As the name implies, sarcoma constitutes a fleshy tumor, and microscopic examination shows that it is composed of cellular tissue of an embryonic character. Various forms of sarcoma are described by pathologists, but there are three forms which are most apt to involve the skin. These are known as the round cell, the spindle cell and the melanotic sarcomata.

The round cell sarcoma is made up of small round or oval cells, usually no larger than the white blood corpuscles. It commonly forms a soft tumor which is apt to be discolored as the result of interstitial hemorrhage. In certain cases the cells are packed in masses separated by a connective tissue stroma, forming the variety known as alveolar sarcoma.

The spindle cell sarcoma is made up of bundles of spindle-shaped cells, which interlace and form a tumor which is usually much firmer than the round cell sarcoma. It is not as likely as the other forms to be followed by secondary tumors in the internal organs.

The melanotic sarcoma, which is the most common of these three forms, is made up of cells which are usually spindle-shaped, and contain more or less brown or blackish pigment. It always develops in the pigmented layer of the eye or skin, and is very apt to appear primarily on the site of a pigmented mole. It exhibits a marked tendency to metastasis, and numerous tumors of varying size are soon formed not only in other portions of the skin, but also in the internal organs.

DIAGNOSIS. The diagnosis of sarcoma occurring in a multiple form is usually easy. A solitary tumor in the absence of pigmentation and ulceration might be mistaken for a syphilitic gumma, but the firmness of the latter growth and the history or coincident symptoms of syphilis would usually reveal its nature. A single ulcerated sarcoma may be recognized by its marked tendency to bleed upon the slightest provocation.

TREATMENT. A solitary sarcoma may be excised or destroyed by means of the galvanocautery, ample precautions having been taken to control the hemorrhage which is often excessive. The disease is likely to return *in situ*, or to manifest itself in some other part. In multiple sarcoma curative measures are scarcely to be hoped for, and usually the fatal termination can only be delayed by treatment.

Köbner, however, has reported a case of general sarcoma cured by the subcutaneous injection of arsenic. The patient was a girl eight and-a-half years old, who presented numerous small, hard, brownish-red nodules on the face and both upper and lower extremities. The treatment lasted a year or more, and resulted in the complete disappearance of the small tumors, which microscopical examination had shown to be the unmistakable products of a genuine spindle-celled sarcoma of the skin and subcutaneous tissue.

CHAPTER VII.

NEUROTIC DISEASES.

The part which the nerves of the skin play in the production of cutaneous disease is a very important one. Inasmuch as the nutrition of the skin and its functional activity are dependent upon nervous influence, the prime factor in the etiology of many skin affections may be sought and found in an impaired condition of the nervous system. Many other affections are greatly aggravated, if indeed they are not caused by irritation reflected from internal organs, and hence it may be safely asserted that a neurotic element of greater or less importance may be shown to exist in the majority of diseases of the skin. In some an actual lesion of the brain or nerve trunk has been demonstrated, but the clinical appearances of such affections have led to their association with other classes. In the present class are included merely those cases in which there is an abnormal sensibility of the skin, with no special lesions of an inflammatory or other character. This abnormal sensibility may be classed as hyperæsthesia, anæsthesia or paræsthesia. Under the latter head are included two affections in which the functional disturbance of the nerves is one of quality rather than of quantity. These are pruritus and dermatalgia.

An extreme sensibility of the skin is not unfrequently met with in connection with general nervous derangement, and in certain rare cases it may be met with alone, The whole surface or but a limited portion of the skin may be affected, and the slightest external irritation may suffice to produce vasomotor disturbance with various subjective sensations. The hyperæsthesia in one case may be readily excited by friction of clothing, while in others it is more likely to be the result of heat or cold. A complete or partial loss of sensibility of the skin is often observed in the case of hysterical females, without any cutaneous lesions. In a few skin diseases, and notably leprosy, anæsthesia may be a prominent feature of the affected parts.

PRURITUS.

Pruritus, or "itching," is usually a symptom rather than a disease, but to very many cases in which there is an intense itching of the skin, evidently of internal origin, the term "Pruritus cutaneus" is conveniently applied. The itching, which is associated with eczema, scabies and certain other pruriginous skin affections, is not included in the present disease, which is wholly independent of any structural alteration of the skin. The affection, thus limited, is usually a chronic one and may involve the whole skin or be limited to a particular region, such as the anus, scrotum or vulva. The sensation experienced by the patient is

variously described as prickling, crawling or burning. It is very annoying even when slight, and in its most pronounced form is capable of destroying all sense of comfort and sometimes driving the unfortunate sufferer to the verge of suicide. During the day the itching may be comparatively slight and only troublesome when the patient is overheated or excited. At night, however, severe exacerbations occur and often many sleepless hours are devoted to ineffectual attempts to quell the torment by constant scratching.

In the worst cases of pruritus an impairment of the general health is always noticeable. This may be considered as partly the cause of the affection and partly the result of the intense suffering which the patient is forced to undergo. Many causes of the affection have been discovered by the careful study of cases, but nevertheless its etiology is frequently obscure. Hepatic and renal disease frequently give rise to itching of the skin. In jaundice it is observed in a large proportion of cases at the outset of the attack or even some time before, and probably is due to the circulation of abnormal biliary constituents in the blood. In diabetes an irritable condition of the skin is very common, and in many cases of Bright's disease it is also met with. Indeed, the connection between cutaneous pruritus and renal disorder is so intimate that in every case of chronic itching of the skin occurring without apparent cause, a careful examination of the urine should be made. In this connection it may be mentioned that severe and prolonged cutaneous irritation may be one of the causes of albuminuria. The ingestion of certain drugs is well known to occasion itching of the skin, and the pruritus resulting from opium is mentioned by many of the earliest medical writers. In advanced age pruritus is occasionally found to be a distressing and intractable affection. Sudden changes of temperature often give rise to it, and the change from light to heavy underclothing in the autumn or early winter is apt to occasion a temporary itching of the skin in many persons.

The cause of localized pruritus is often found to reside in a venous congestion of the part. In pruritus ani, *e. g.*, the suffering is invariably aggravated by constipation and obstruction of the portal circulation, while in pruritus vulvæ, uterine engorgement and pregnancy are well known to be exciting causes. In children, worms are not infrequently productive of itching, not only of the anus but of the nose.

Diagnosis. In cutaneous pruritus, as has already been stated, there are no primary lesions. There is simply an itching of the skin with the excoriations or scratch-marks which result from the use of the finger nails. In many cases the skin presents a normal appearance at the time of examination, and the diagnosis must be based upon the statement of the patient as to the constant or frequent irritability of the skin and the unconquerable desire to scratch and tear it. Usually, however, we find corroborative evidence of this statement in the form of hyperæmic patches which have been recently rubbed or scratched, linear excoriations upon the skin or disseminated blood-crusts. In very chronic cases there may be a certain amount of pigmentation, either general or localized.

The absence of lesions, save those which result from scratching, will usually enable one to distinguish the affection from a number of itching eruptions with which it may be con-

founded. When the pruritus is localized it is very apt to give rise in time to eczema, the constant scratching causing an inflammatory and thickened condition of the skin. In general pruritus the affections likely to be mistaken for it are urticaria and the animal parasitic diseases.

Urticaria is readily recognized when wheals are present, but as these lesions have frequently disappeared when the patient is seen by the physician, and only the marks of scratching are to be observed, the case is liable to be considered as pruritus. In such a case the history given by the patient of sudden outbreaks of red or white "lumps," and the characteristic irritability manifested after the finger nail is drawn rapidly over the skin must serve as the basis of a diagnosis.

Scabies will often occasion itching and excoriation of the skin in cases where there are no lesions upon the hands, and hence the parasitic origin of the affection may be overlooked. In adult males a few inflammatory nodules or excoriations upon the genitals will point with certainty to scabies, and in children the fact that two or more in a family are simultaneously affected will suggest a contagious affection in place of pruritus.

Phtheiriasis occasionally occurs among patients whose social position would not lead one to suspect that a few pediculi were harboring in their clothing. In such a case the itching of the skin is often unaccountable until a most careful examination reveals the hemorrhagic points produced by the "bite" of the pediculus, or brings a stray insect to light, and thus settles the diagnosis.

TREATMENT. In no disease of the skin is it more necessary to consider the general condition of the patient in order to effect a cure than in pruritus. While great relief will often be obtained from the use of local applications, it is evident from the host of these that have been recommended that they only afford temporary palliation of the trouble, and that general treatment must be relied upon to effect a cure. Attention to the internal disorders which have been already mentioned as causing or aggravating the itching of the skin is the first step in treatment, and in some cases the only step which is necessary to be taken. When no abnormal state of the stomach, liver or kidneys can be detected, the tone of the patient's system should be improved by hygienic treatment, and in many obstinate cases, an entire change of diet, scene, etc., will not only improve the patient's health, but at the same time divert his mind from the condition of his skin until a cure is unconsciously effected.

Of internal remedies a number have been recommended as tending to allay cutaneous hyperæsthesia. Of these gelseminum and pilocarpine deserve especial mention. The value of gelseminum, as an anti-pruritic, as suggested by Bulkley, I have found to be quite marked in a number of cases, especially in old people. From ten to fifteen drops of the fresh tincture may be given at bed time or at intervals of two or three hours, until the itching is controlled or the characteristic toxic effect of the drug is noted. Pilocarpine may be given in the form of fluid extract, in small and repeated doses, until a slight decrease of perspiration is noted, when the pruritus will often be found to have disappeared or abated. Hypodermic injections of the muriate of pilocarpine have produced excellent results both in the pruritus of youth and old age. Behrend speaks highly of the internal use of carbolic acid.

The local remedies which have been employed for the relief of itching are innumerable, the majority of them being of much less value than one would infer from the statements made as to their effects. At best they are simply palliative and only relieve the patient's suffering until the cause of the itching is removed. Warm baths containing starch or carbonate of soda will soften a dry, harsh skin or soothe an irritated one, and constitute one of the most important methods of local treatment in cases of universal pruritus. After the bath the skin may be rubbed with alcohol and anointed with some mildly stimulating unguent.

The stimulating applications which cause the skin to tingle or burn for a few minutes are often followed by a complete relief of the itching for several hours. Of these carbolic acid is one of the most reliable if used of sufficient strength. The following lotion may be used at first, diluted with two or more parts of water, and then gradually increased to its full strength, if found nescessary.

℞	Carbolic Acid, - - - - -	25 parts.
	Glycerine, - - - - - -	25 "
	Water to - - - - - -	100 "
M.		

Chloroform is a good local remedy and may be used in the form of the officinal liniment. Pruritus of the anus is often relieved by the pressure of a tuft of cotton or other foreign body introduced into the sphincter; when lotions and ointments have failed to give relief. Pruritus of the vulva may likewise be relieved by introducing a tampon of cotton soaked in glycerine and water, with a string attached for its convenient removal.

DERMATALGIA.

Synonym—Neuralgia of the Skin.

In certain rare cases a limited portion of the skin becomes the seat of an intense pain or burning sensation which is generally paroxysmal in character. This may exist without any change in the appearance of the skin, although in most cases the sensation is apt to be quickly followed by an erythematous condition, and in some instances by the outbreak of vesicles. The affection is always symptomatic in character and is due to some lesion of the nerve centres or tract leading to the affected part. In some cases it has been referred to a nerve lesion of syphilitic origin, and in other cases has been observed in connection with locomotor ataxia. It is most apt to occur in middle aged females, and particularly at the period of the menopause. I have recently seen a lady suffering from locomotor ataxia whose foot and ankle gave her intense pain, which was referred to the skin, and which was invariably followed by an erythema and indistinct herpetic eruption.

TREATMENT. The application of hot water may be resorted to in this affection, or the oleate of mercury and morphia rubbed into the skin.



FAVUS CAPITIS



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FAVUS CORPORIS.

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CHAPTER VIII.

PARASITIC DISEASES.

FAVUS.

Synonym—Tinea Favosa.

Favus is a parasitic disease occurring upon the scalp or on non-hairy parts, and is characterized by the development of sulphur-colored cup-shaped crusts. These are not met with at all stages of the disease, although they are generally present. At the beginning there may be simply a circular furfuraceous patch, which on the body cannot be distinguished from trichophytosis or ringworm. Soon, however, bright yellow specks are seen, and as the cup-shaped crusts rapidly develop, it will be noted on the scalp that each one is seated at the mouth of a hair follicle, and that its centre is generally perforated by a hair. As these "cups" become numerous they tend to coalesce, and a thick, irregular crust of lighter color is formed, and the original cup-shaped crusts can be found only about hairs at the margin of the large patch.

If, in any case of incipient favus, the crusts be removed and the hair shaven, the scalp will appear smooth and in a tolerably healthy condition, and the development of the disease may be conveniently studied. In about two weeks the parasitic growth which has remained in the follicles will show itself on the surface of the scalp in the form of minute yellow crusts around some of the growing hairs. These crusts being covered with a layer of epidermis are not, strictly speaking, upon the surface. When in a few days they have reached the size of a split pea, the margin becomes elevated and the centre depressed, forming the favus "cup." This is concave on the upper surface and convex beneath; fitting into a corresponding depression of the scalp, which is covered with a very thin layer of epidermis. The peculiar form of the cup arises in the following manner: The spores of the parasite grow between the layers of the epidermis, at the funnel-shaped mouth of the hair follicle. As the fungous mass increases in bulk, it raises the superficial layer at the periphery of the disc above the surface of the skin, while in the centre, where the epidermis is in connection with the hair, and immovable, a pit is consequently formed. On the under surface nothing hinders the mass in its growth from pressing down upon the succulent cells of the rete, and the convexity of the inferior surface of the cup, and the corresponding depression of the scalp is thus produced. When a case of favus goes untreated the crusts invade a large portion of the scalp, increase in bulk while fading in color, and finally, becoming quite friable, break and tend to fall off in piecemeal. The pressure of the cups causes atrophy of the hair roots,

and bald spots of a dull, purplish-red hue, and cicatricial appearance are seen after the fall of the crusts. The hair never grows with normal luxuriance after a severe attack of favus, but the scalp is covered with a sparse growth of wiry and curling hairs. The disease, untreated, persists until the whole scalp is affected, and the hair very nearly destroyed.

The disease presents somewhat different features according to its seat. On the head, where it usually appears, it is not often seen by the physician at the outset, but only when, through ignorance or wilful neglect or mismanagement, it has been allowed to extend over considerable ground. Favus epidermidis, or favus corporis, as it is more appropriately termed, is not as apt to be as severe as favus capitis. It does not present the accumulation of friable crust, and is far more amenable to treatment, on account of the inability of the spores to take root in deep follicles. The reddened and scaly circular patches which precede the development of the cups, and present a notable similarity to patches of ringworm, can be well studied in these cases. Sometimes favus co-exists upon the scalp and non-hairy parts, but in a number of cases of favus corporis coming under my observation, the scalp has been free. It has been reported as attacking the finger nails, and from the itching of the affected scalp its transference to the nails would not appear strange.

Favus occurs chiefly in childhood, although from lack of proper treatment, it may persist upon the scalp and be observed in middle life. It is rare in this country, as compared with its occurrence in some parts of Europe. The disease is contagious, and as it is transferred directly to another, those most likely to contract it are children in schools and crowded tenements. Though a local disease, it seems to flourish best upon the scalp and skin of those who are poorly fed and cared for, and those in impaired health. Family pets are often a source of the disease, and in every case of its occurrence in a household, it is well to examine the dog and the cat. Mice seem peculiarly subject to favus, and are often caught with large, yellow crusts upon their heads. Through the cat they transmit the disease to some member of the family. In spontaneous cases, it is probable that the spores have been carried through the air, and found a favorable nidus upon a moist scalp or patch of skin. A well-marked case of favus of the scalp exhales a peculiar odor, which has been likened to that of mice or of an ill-kept menagerie.

TREATMENT. The treatment is simple, although it requires much time and patience to cure a case in which the scalp is extensively affected. Favus of non-hairy parts can be readily cured by softening and scraping off the crusts and applying one of the numerous parasiticide remedies. A few weeks, at most, suffice for a cure. Upon the scalp the spores of the parasite have usually invaded the deepest portion of the follicles, and consequently no superficial applications can effect a radical cure, at least, until the hairs have been pulled out. This must be done over the whole of the affected surface, and in obstinate cases, repeated a number of times. After the epilation, a one-half per cent. lotion of corrosive sublimate, or a three per cent. ointment of chrysophanic acid may be well rubbed into the scalp several times a day, and continued until both scalp and hairs have apparently assumed a tendency to healthy growth. Even now, however, it cannot be asserted that the disease is cured, with-



TRICOPHYTOSIS CAPITIS.



TRICOPHYTOSIS CORPORIS.

out a microscopical examination of some of the new hairs from different portions of the scalp.

TRICHOPHYTOSIS.

Synonyms—Herpes Tonsurans.—Tinea Trichophytina.—Ringworm.

Trichophytosis is an affection of the skin resulting from the growth of a microscopic plant called the Trichophyton. It is one of the three vegetable parasitic diseases of the skin, the other two being chromophytosis and favus. Like these, trichophytosis is contagious, possessing the quality in a far more marked degree than chromophytosis. Children are more susceptible than adults to contagion, and when once introduced into a family or school the disease is apt to be conveyed from one to another until nearly all are affected. It is some times observed in horses, cows, cats and other domestic animals.

From the peculiarities presented by trichophytosis, according to its location, five regional forms of the disease may be conveniently described. These are given below in the order of their importance, and with their most frequent synonyms appended.

Trichophytosis capitis. . . . Tinea tricophytina tonsurans.
" barbae. . . . Tinea sycosis. Sycosis parasitica.
" corporis. . . Tinea tricophytina circinata.
" cruris. . . . Eczema marginatum.
" unguium. . . Onychomycosis.

On the general surface of the body (T *corporis*), where the eruption can be most satisfactorily observed, the disease begins either in the form of a group of minute vesicles, or a small, reddened, scaly macule, which, increasing in size, presents a circular outline and a slightly elevated margin. The skin is but slightly inflamed as a rule, and at the advancing border of a typical patch a circle of minute vesicles may be sometimes discovered upon close examination. The patch extends at the periphery, and as the elevated margin creeps over the healthy skin, the central portion becomes but slightly, if at all elevated, and far less scaly than the border. In many cases the enclosed area becomes quite normal or remains somewhat pigmented, and the eruption presents a characteristic annular appearance. There is rarely but a single focus of disease, and in many instances a score or more of circular patches may be counted. When these are near each other they coalesce as they increase in size, and large patches of irregular outline result.

Trichophytosis of non-hairy parts (T. *corporis*) occurs in both sexes, and at almost all ages. It has been reported as occurring upon an infant six hours old.

In the genito-crural region (T. *cruris*) the parasite grows luxuriantly, owing to the heat and frequent moisture of the parts affected, and the eruption extends upon the buttocks and inner surface of the thighs. It produces in this region an unusual amount of dermatitis, and in many subjects a pronounced eczema. In the tropics this form of disease is common and obstinate.

On the scalp (T. *capitis*) or bearded portion of the face (T. *barbae*) the disease begins in the form of one or several small, scaly patches. After having existed a short time without treatment, the hairs springing from the patch lose their lustre, become brittle, and finally break off very near the surface of the skin. The patch, which has now perhaps reached the size of a cent or quarter dollar, appears bald at first glance, but on close inspection is found to be covered with white powdery scales, through which the broken hairs project like stubble. Trychophytosis *capitis* is never seen in adults, although the occurrence of the disease upon the bearded portion of the face is by no means uncommon. Trichophytosis of the beard may be contracted in the barber's chair, and constitute one form of the so-called "barber's itch," which term is usually made to include eczema and sycosis. It does not arise from the use of an unclean razor, as is commonly imagined, but from the use of a damp, soiled towel, which furnishes a most excellent nidus for the growth of any vegetable parasite.

In certain cases of ringworm of the scalp or beard a marked inflammatory reaction is occasioned by the penetration of the spores into the deeper portion of the hair follicles. A peculiar condition of the skin is produced, which differs greatly in appearance from the ordinary form of the disease. It is commonly known as kerion, or the kerionic form of ringworm. It usually begins with the development of one or several small, pea-sized tumors, which are always reddened and "boggy," and which often present a deceptive feeling of fluctuation which is apt to lead one to declare them abscesses. In spite of the appearance presented by these little tumors, it is a noteworty fact that they rarely if ever suppurate. The fluid contained in the deeper portion of the corium, and which gives to the swollen part its soft, spongy feeling, is a highly albuminous serum, which appears in the form of viscid, honey-like drops, at the dilated orifices of the follicles, especially after the hairs have loosened and fallen. This loss of hair, which usually takes place soon after the affection has developed, is limited to the portion of the scalp affected. The little tumor remains for an indefinite period of a livid red hue, and then tends to gradually fade and flatten, unless similar lesions develop in the immediate vicinity. Sometimes, especially in young children, it enlarges peripherally, and forms a soft, flattened, and but slightly elevated disk, as large as a half dollar. Generally, a group of closely packed tumors, or mounds, develop, and the symptoms already described as pertaining to a single small tumor present themselves in an exaggerated form.

Trichophytosis affecting the nails (T. *unguium*) is extremely rare, but it may occur either alone or in connection with rings of the disease upon the hands or other portions of the body. The nails, one or more of which may be affected, become thickened, discolored, and friable. Those of the fingers are more likely to suffer than those of the toes.

DIAGNOSIS. The diagnosis of trichophytosis is often so simple that it can be made by the patient. When the eruption, however, has been treated and partially cured, or when, on the other hand, it has been maltreated or overtreated, so that it has become obscured by a secondary eczema, the physician must be cautious in venturing an opinion until a microscopic examination has determined the presence or absence of the parasite. The diseases with

which it is most likely to be confounded are favus, psoriasis and eczema. In the early stage of favus, before the characteristic yellow crusts have developed, the appearance presented is very similar to ringworm, and a diagnosis can only be based on a microscopic examination of the hairs. Psoriasis sometimes appears in the form of circular, reddened patches, with a very moderate amount of scaling, closely resembling the patches of trichophytosis, and when on the wane they tend moreover to heal in the center, and form rings which have often been mistaken for ringworm by physician as well as patient. The peculiar location and symmetry of the eruption in psoriasis will generally serve as a guide in diagnosis.

Eczema may simulate every skin disease. In its dry and scaly stage, especially when occurring as one or more small roundish patches, such as may be met with on the face, breast or hands, it resembles trichophytosis in being hyperæmic, scaly and itchy in a moderate degree. The patch of eczema, however, is rarely circular, and generally shades off into the surrounding skin instead of presenting an abrupt margin. Furthermore, there is never any tendency toward healing in the central portion of the patch. Trichophytosis *capitis* is often confounded with eczema, but the circular form of the patch, the absence of moisture, and particularly the mealy epidermis and the short, broken hairs ought to reveal the nature of the affection in most cases. In all doubtful cases of skin disease, where trichophytosis or one of the other parasitic diseases is suspected, microscopical examination of a few scales or hairs must be resorted to in order to settle the question. The diagnosis of a well-marked case of kerion is attended with no difficulty. The bald and lumpy condition of the scalp is not seen in any other affection. In the earlier stage of kerion a mistake might readily occur. Where there are a number of scattered red and soft tubercles upon the scalp they might be mistaken for boils, abscesses or for syphilis. The latter disease would not be likely to occur at the age when the kerion is commonly met with, unless it were hereditary, in which case it would not manifest itself in the form of tubercles limited to the scalp. Boils would be recognized by their more conical form, indurated base, and tendency to suppuration, while a number of small equal-sized abscesses would not be apt to occur upon the scalp without apparent cause. After the hair has fallen from the little tumors, and the boggy feeling lessened, they might be regarded as indications of incipient alopecia areata; but in this affection the bald patches show no signs whatever of past or present inflammation, the affected scalp being white, smooth, and not at all elevated. Where a portion of scalp is suddenly attacked, and a copious discharge of gummy serum takes place, the affection bears a resemblance to an acute eczema. It will be noted, however, that the hairs are loosened and pull easily, which is never the case in eczema of the scalp.

TREATMENT. As trichophytosis is essentially a dermatitis of greater or less severity, resulting from the growth of a parasitic fungus in or upon the skin, its treatment must consist mainly in the use of local measures. As the trichophyton will take root and thrive upon a perfectly healthy skin, it is evident that internal treatment cannot effect a cure. At the same time clinical observation teaches that in certain conditions of the system the skin affords a more favorable soil for the development of the fungus. The affection appears to be more

disposed to spread, and to be less easily checked by the action of parasiticides, when the patient is ill-nourished or physically depraved. Internal remedies may, therefore, in a slight degree at least, prove conducive to a cure, and in a majority of cases it is advisable to look well after the general health while carrying out the local treatment. Cod-liver oil, by promoting nutrition of the skin, and bathing, by rousing into activity the cutaneous functions, produce a beneficial effect, and are especially called for by the class of patients affected, many of whom are of a lymphatic temperament, averse to fatty food, and with a dull, torpid, pasty skin.

The main object of local treatment should be, (1) to reduce any undue amount of inflammation, should such be present, and (2), to destroy the very last germ of the parasite. Success depends upon the appropriateness of the remedy. Failure may result from the use of one which is too weak, or from the too long continued use of one which is unnecessarily strong. In most cases vigorous local treatment may be instituted at once, but on the soft skin of childhood, and on certain regions in the adult where the skin is thin and easily inflamed, it is preferable to employ the milder parasiticide remedies for a greater length of time, than to risk the production of a severe dermatitis or eczema. To destroy the parasite it is usually necessary to destroy the epidermis and hairs which are invaded. Where the disease occurs on non-hairy parts, it is commonly superficial and easily cured. As the spores and mycelium grow between the cells of the horny layer of the epidermis it is evident that whatever will remove this layer will carry away with it the parasitic growth. When this, however, has grown down into the hair follicles, and even penetrated the hairs themselves, the disease is not readily cured. It may indeed prove exceedingly intractable, and recur after it is apparently well.

The treatment of kerion consists in improving the general tone of the patient, and in thoroughly epilating the affected part. Whether the disease is of parasitic origin or not, epilation is demanded by the condition of the hairs, which are not broken off, but lie, as in case of sycosis, like foreign bodies in the inflamed follicles. Their extraction removes a source of irritation, and the free discharge of viscid serum through the follicles lessens the boggy condition of the scalp and promotes the subsidence of inflammation. It must not be expected that epilation will effect a speedy cure of the affection, even when the trichophytic fungus is present as an exciting cause. As the fungus, in this case, is not the sole cause of the peculiar phlegmonous condition, its removal with the hairs will not produce as striking an improvement as in cases of ordinary trichophytosis capitis.

On the general surface of the body, where the hairs are fine or absent, the disease can be removed mechanically by scrubbing the affected part daily with sapo viridis. This alone will usually suffice, but the patient is apt to be more contented, and indeed, the cure may be hastened, if he applies an ointment or a lotion to the affected part between the soap frictions. An ointment of thymol (three to five per cent.), or of carbolic acid (ten to fifteen per cent.), or a lotion of the hyposulphite of sodium (twenty per cent.), will be found very useful. These remedies have the power to arrest the development of vegetable spores, if not to



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TRICHOPHYTOSIS CRURIS.

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utterly destoy them, but to secure their beneficial action they must be applied with great frequency, as the parasitic spores multiply with amazing rapidity, and no time should be lost between the applications. Most of the so-called parasiticides, however, merely have an astringent or slight caustic action, and would be more properly termed epidermicides. Common ink, and a copper cent dipped in vinegar, are valued remedies among the laity, and not wholly without effect; but the physician will do better to paint the patches with acetic acid or the tincture of iodine. The latter is objectionable when the affection is on the face or hands, owing to the staining of the skin. If decolorized, the tincture loses much of its efficacy. A still better application is a five per cent. ointment of chrysophanic acid, or one of the remedies already spoken of as acting in a truly parasiticidal manner. Blistering a patch with cantharidal collodion, or some other epispastic, is a most efficacious plan of removing the disease, but is rarely called for.

In the genito-crural form of the disease the parasitic growth is rather difficult to get rid of, as strong applications must be used with caution. But the chief difficulty in treating this form arises from the fact that it is so frequently associated with an erythematous eczema. The skin is reddened, thickened and itchy, and even when the parasite has been destroyed by the use of pure sulphurous acid, or the remedies already suggested, the outline of the patches and their general appearance remain pretty much the same. In other words, the eczema still remains to be treated.

The treatment of trichophytosis capitis is similar to the treatment of favus, after the crusts have been removed, and consists mainly in epilation. In trichophytosis the hairs are more difficult to extract than in favus, since, owing to the penetration of spores into the fibrous portion of the shaft, the hairs break, and a patch has to be epilated repeatedly before the scalp is left smooth and clean. The prognosis of this affection is much better than in favus of equal extent, since the hair bulbs are not so apt to be destroyed, and consequently the bald, depressed spots and the sparse, wiry hair, which usually result from a severe attack of favus, do not follow. After trichophytosis of the greater portion of the scalp, the hair may in time grow as thick and strong as ever.

Epilation may be performed in various ways. I have made some use of an epilating paste, composed of resin, wax and balsam of tolu, molded into the form of a convenient stick, about an inch in diameter. One end of this being melted by heat and pressed upon the patch, a sudden twist and jerk will extract a large number of hairs at once; but the epilating forceps are almost universally used for this purpose. They should be carefully made, with broad, accurately-closing and slightly-roughened blades. If too stiff they are certain to tire the fingers of the operator where a patch of any size is to be epilated. When the scalp or beard is recently affected, the patches small, and the hairs normal, epilation is not necessary. The patches may be shaved, and parasiticide applications vigorously applied for a considerable length of time. If, now, the microscope shows no indications of a parasitic disease after repeated examination of the hairs and epidermic scales, the shaving may be discontinued, but the patches must be closely watched for a month or two, lest the disease reappear.

CHROMOPHYTOSIS.

Synonyms—Pityriasis Versicolor.—Tinea Versicolor.—Chloasma.—Liver Spots.

Chromophytosis is another of the three important affections of the skin which owe their origin to the growth of a vegetable parasite or fungus. It is contagious, though not in a marked degree, and patients seldom have any idea of the manner in which they contracted the affection. The trunk and upper extremities are its favorite and almost its sole seat. It sometimes extends upon the neck, and even upon the cheeks, and may be found, in rare instances, upon the thighs. It usually commences upon the upper portion of the breast, and in many cases is quite symmetrical in its development. Although, at the beginning, the eruption may be one-sided in respect to situation, in nearly all cases of long standing, where the whole trunk is more or less affected, the symmetrical distribution of the eruption is a marked feature.

The affection begins in the form of a few pin-head-sized, yellowish, scaly spots, which gradually increase in size and number. When first noticed by the patient, there may be a score or more of isolated, brownish-yellow, pea-sized circular patches, showing very distinctly upon the background of the normal skin, or there may be a small irregular patch of the same color, variable in size, with a few isolated circular spots scattered near its margin. As the eruption increases in extent, it spreads over the upper portion of the chest and follows down the median line as a rule towards the pubis. The back likewise becomes affected, though not generally in so marked a degree as the breast. The sternal region, though often the first to present the eruption, frequently becomes free in an advanced stage. The groins are usually exempt, and the axillæ and sides of the chest are not as thickly covered as the breast and back.

The circular discs are usually slightly elevated, but the diffused patches are less so, and sometimes can with difficulty be distinguished from normal skin. The margin may be quite abrupt, or it may shade off so imperceptibly that it is difficult to say exactly where the affected skin begins.

Itching is present in a moderate degree in some cases, but generally there is nothing to attract the patient's attention to the trouble, and in patients who bathe little, the affection may exist for a long time, and then be accidentally discovered. Though occurring often among those who pay due attention to personal cleanliness, and hence met with in private practice, it is far more common in that class of persons who perspire freely and bathe seldom. In dispensary practice patients rarely apply for treatment, unless a guilty conscience leads them to mistake the eruption for a manifestation of syphilis; and yet, where patients with syphilis and other affections are stripped for examination, chromophytosis in greater or less extent is very frequently observed.

The disease may exist for the greater portion of a lifetime if nothing be done to remove it. In some cases a small patch or number of patches show no tendency whatever to spread,





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CHROMOPHYTOSIS.

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while in other cases portions of the body become quickly covered, and the eruption shows a marked tendency to return after treatment. The disease is only met with in adults, and occurs with nearly equal frequency in either sex. It is common in early adult life, and rarely if ever seen upon the aged.

DIAGNOSIS. The affection is generally recognized with ease by the color, the peculiar configuration of the patches, and the scaling of the epidermis when scratched lightly with the finger nail. In cases where the patient has bathed and used soap freely, the disease may be extensive, and yet be only recognized by the yellowish or tawny hue which it imparts to the skin. In case of doubt, the microscope will settle the question at once.

TREATMENT. As the disease is a strictly local one, local measures will effect a cure. Care must be taken, however, that the treatment is faithfully carried out by the patient, else the disease will only be apparently cured, and in a short time will reappear. Two points should always be borne in mind. Firstly, that the affection is confined to the epidermis, and whatever means will remove the outer layers of epidermic cells will necessarily remove the disease. Secondly, that it is useless to cure nine-tenths of the disease, for if a single spot be left, or even if the same underclothing be worn again, without being thoroughly cleaned, the eruption is almost certain to return.

Soap will cure a great many cases, if the skin be scrubbed, rather than rubbed with it, or if it be rubbed into the affected patches daily, and allowed to remain for a week. A bath taken then will remove considerable dead epidermis, and with it the spores and mycelium of the parasite. Common soft soap may be used when the sapo viridis, or green soap, is not easily obtained. The following ointment or paste I have used in many cases, and always with the most satisfactory results.

℞ Green Soap, - - - - - 50 parts.
Washed Sulphur, - - - - 40 "
Glycerine, - - - - - - 10 "
M.

The tincture of iodine, painted over the patches, and daubed on the small circular spots, will cause the epidermis to peel off, and thus remove the disease. This remedy, even diluted, changes the color of the affected patches to a much darker brown than the normal skin, and hence is of advantage in revealing the presence of minute spots which might readily be overlooked. An ointment of chrysophanic acid quickly cures the affection, but is objectionable on account of its tendency to inflame the skin, and to stain the clothing. When the patient is apparently free from the eruption, it is well to apply for several weeks a lotion of carbolic acid of five per cent. strength, or the following more agreeable preparation:

℞ Hyposulphate of Sodium, - - 10 parts.
Rose Water to - - - - 100 "
M.

SCABIES.

Synonym—The Itch.

Scabies is an affection of the skin, resulting primarily from the burrowing of minute insects called "acari." The presence of these parasites in the skin occasions a severe pruritus, and provokes a characteristic eruption, which cannot be duly appreciated and rationally treated without a certain knowledge of their anatomical structure and peculiar habits

The Acarus *Scabiei*, or itch-mite, is a minute and almost microscopic insect. It can be readily seen with the naked eye when extracted from its burrow or *cuniculus* by means of a needle, but its features can only be studied beneath the microscope. The mature acarus is of oval shape, and provided with eight legs. The male is smaller than the female, does not burrow as does the latter, and is not readily found. The young acari possess but six legs (two posteriorly), and these are in time thrown off with its skin, when the mature eight-legged insect appears. If a female, she becomes speedily impregnated by the male, who roams at night upon the free surface of the skin. She then proceeds to burrow, and deposit her ova to the number of a dozen or more beneath the epidermis. At the end of this burrow she dies, unless prematurely removed by the finger nail of her unwilling host. The ova are hatched within fourteen days, and find their way to the surface of the skin. Here the maiden acari are wooed, become impregnated, and the burrowing and hatching process is repeated. The burrows are generally found where the skin is thin and warm, as between the fingers, upon the penis in the male, and the nipple in the female. They appear as dotted, slightly elevated and curving lines. Vesicles and pustules are frequently observed in their vicinity, but the extensive eruption which, in some severe cases, covers the body and extremities, is not a direct effect of the burrowing of the acari, but results from the free use of the finger-nails. The itching is almost intolerable, especially in the night, when the patient is warm in bed.

The eruption in scabies is localized in great measure according to the character of the patient's clothing, and differs in this respect in men, women and children. Upon the hands and wrists it is common in all, but its prevalence about the breasts of women, and upon the genitals in men and boys seems to depend upon the ease with which they can scratch in those localities, especially at night. In young children, who wear long, close-fitting night-dresses, the ankles, which alone are exposed, are usually the seat of an eruption. The face and scalp are usually free from eruption, even in the most severe cases of scabies. A secondary eczema, however, may be found upon the head, as well as on the body. The disease is usually contracted at night, from some affected bedfellow. The physician may handle the hands of a patient with impunity, according to my experience. Nevertheless, one writer has stated that he contracted the disease "from incautiously handling and hunting for the mite on a child's arm."

Diagnosis. The diagnosis of scabies may be based upon the discovery of burrows, or,



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in the event of not finding them, upon the characteristic locality of the excoriated papules which constitute the eruption. The burrows are more apt to be found in mild and recent cases than in severe cases, where the hands are covered with vesicles and pustules. When the occupation of the patient causes the hands to be kept very much in water, they may appear perfectly free from the disease, and yet a characteristic eruption exist on the body.

TREATMENT. The treatment of scabies depends upon the age of the patient, the chronicity of the disease, and the presence of a secondary eczema. In infants, whose tender skin would certainly become inflamed from use of the ordinary stimulating sulphur ointment, equal parts of vaseline and balsam of Peru may be employed with a satisfactory result. In children and adults stronger applications may be made, although it must be remembered that some skins can bear what others cannot. Styrax balsam, in the form of a liniment, made by adding twenty per cent. of olive oil, or as an ointment, made from an equal part of cosmoline, is an agreeable and effective application. Sulphur, however, has long been the chief remedy in scabies, and although others may be equally good, there seems to be none more efficacious in the majority of cases. It is frequently combined with carbonate of potassium, mercury, tar, chalk, etc., but as far as my experience goes, these compound ointments possess no marked advantage over a simple sulphur ointment, which, if applied in strength suitable to the case and to the various parts of the body, will leave nothing to be desired. The Ungt. Sulphuris (U. S. P.) consisting of thirty parts of sulphur to seventy parts of lard, is rather stronger than is necessary, especially when its application is to be repeated, and combined with baths and soap frictions. A twenty, or even a ten per cent. ointment is preferable in most cases, for the patient generally prefers to be cured pleasantly and permanently, to being cured quickly. A ten per cent. ointment of naphthol is also an efficient remedy.

In a recent case of scabies, smearing the hands at night with the ointment may suffice to effect a cure ; but when the disease is of long standing, the whole body with the exception of the head, should be anointed. Before going to bed, the patient may remain for a quarter of an hour in a warm bath. This macerates the epidermis upon the hands and other affected parts to such a degree that a brisk friction with soap will doubtless exhume some of the acari, and certainly increase the effect of the ointment which is to be subsequently applied. Hebra warns against the injudicious use of warm baths, but the effect of bathing, in predisposing of the skin to eczematous inflammation is only noticed when one employs the very strong applications which he recommends. If the eruption is seated on a delicate skin, and especially if an eczematous tendency manifests itself, baths may be discarded, while the ointment is used with great care, and not continued but for a few days at a time.

Disinfection of the clothing is unnecessary in most cases, if not in all. It is important, however, to treat not only the patient who applies for treatment, but also the bed-fellows, playmates or associates who may be similarly affected. Otherwise the disease will be re-contracted as soon as it is fairly cured.

The duration of the treatment must necessarily vary. Ordinary cases can be cured in from five to ten days. It is always difficult to say just when the patient is cured, and when,

therefore, the treatment should cease. Too often the treatment is continued on account of an eruption which is not due to the acari, but to the irritating applications which are being employed.

PHTHEIRIASIS.

Synonyms—Pediculosis.—Lousiness.

Phtheiriasis is a term which includes both the presence of lice and the cutaneous lesions to which their presence gives rise. In some cases, where an eczematous tendency on the part of the patient exists, the external irritation and consequent scratching is sufficient to occasion patches of typical eczema. The older writers regarded the affection in the light of a specific dyscrasia, of which the pediculi were a natural result, and among the laity at the present time it is a common belief that the lice come out of the skin, where they are supposed to be bred by the disease.

Pediculi are insects belonging to the group of hemiptera. They are without wings, possess a sucking mouth, and undergo no metamorphosis. There are three members of the family which are parasites of the human body, viz., the pediculus *capitis* or head-louse, the pediculus *corporis* or body-louse and the pediculus *pubis* or crab-louse. These occasion the three affections known as Phtheiriasis *capitis*, Phtheiriasis *corporis* and Phtheiriasis *pubis*.

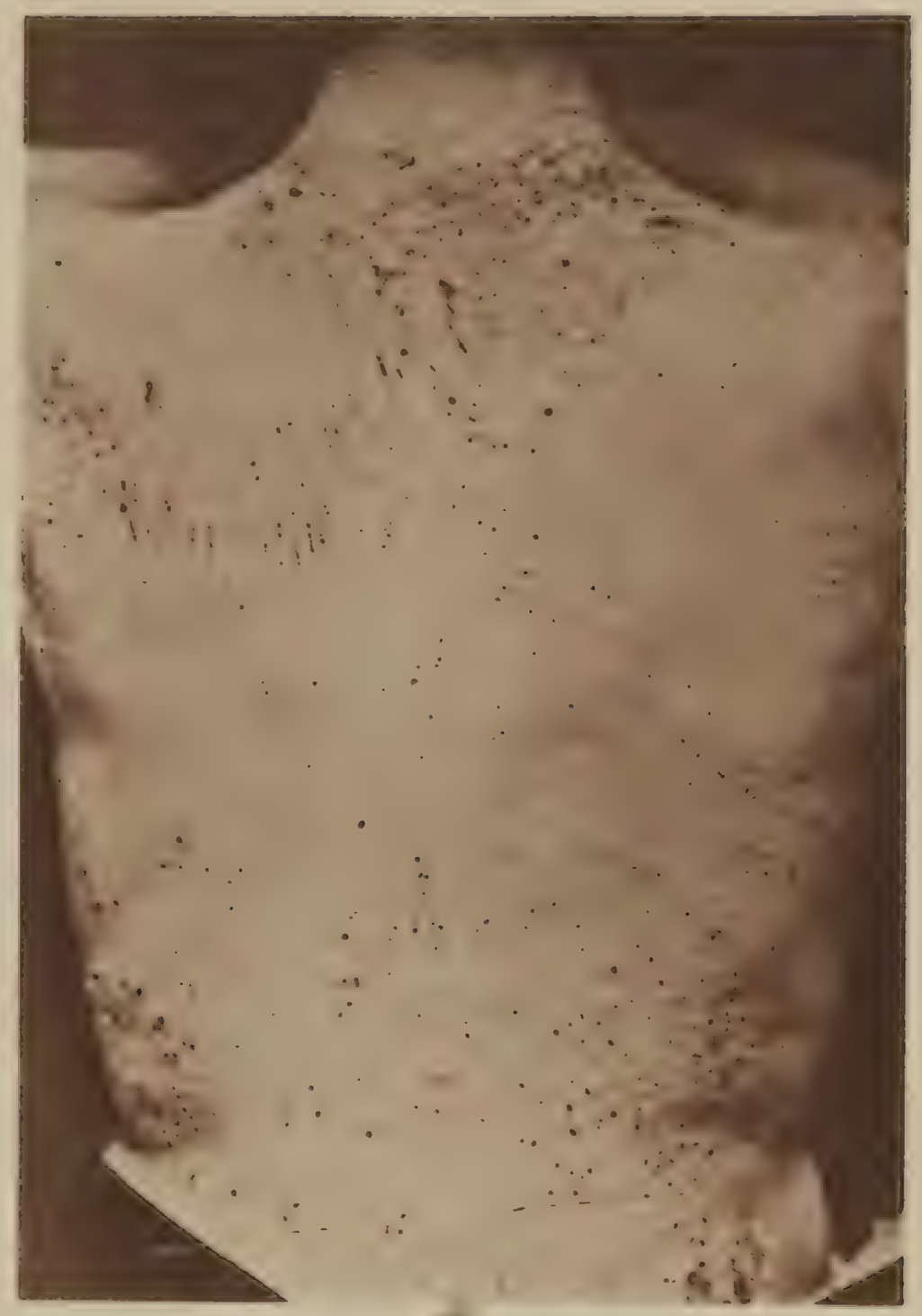
The pediculus *capitis* is of a whitish color, and varies in size from one to three millimetres in length. Attached to its thorax are six hairy, jointed and clawed legs, with which it is enabled to travel rapidly along and among the hairs. It is only met with upon the scalp. The lice deposit their ova either singly or in groups upon the hairs. These ova or "nits" are found, upon close examination, to be whitish, pyriform bodies, glued to the hairs with the smaller end close to the shaft and pointing toward the scalp. They are always deposited near the root of the hair, and accordingly, when observed near the free extremity, it is an indication that the affection has existed for a considerable length of time.

The pediculus *corporis* bears a strong resemblance to the pediculus *capitis*, although it is somewhat larger. Its habits are quite peculiar. It does not burrow in the skin like the acarus or itch-mite, nor is it ever found in the hair like the other species of pediculi. It inhabits the clothing and merely pastures upon the skin. It does not bite, but sucks the blood of its victim through a haustellum or proboscis which it inserts into the skin. Its appetite is voracious, and when observed beneath a watch-glass, during meal-time, its body may be seen to increase in size and assume a darker or reddish color. When numerous the pediculi may be seen traveling over the free surface of the patient's apparel, but when a strict search is necessary to discover them, they will generally be found secreted in the folds and seams of the garments. In cheap lodging-houses, police stations and wherever lousy persons are in the various habit of sleeping, the bed-ticks and woolen blankets may become infested.

The pediculus *pubis* is a smaller, broad-bodied louse, which may infest any hairy part except the scalp. As the name implies, it is commonly met with in the pubic region, but occasionally it is found in the axilla, upon the sternum, in the beard, and upon the eyelashes.



PHTHEIRIASIS CAPITIS



PHTHEIRIASIS CORPORIS

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PHTHEIRIASIS CAPITIS.

Phtheiriasis *capitis* is an extremely common affection among the lower classes. Though most frequently attacking children, and especially those who associate with a number of others in schools, asylums and similar institutions, it is not infrequent among adults. Filth and neglect act as predisposing causes, but at the same time, children who have every possible attention paid them are often affected, and even ladies of wealth and refinement sometimes discover that they have been unconsciously harboring a large number of unwelcome and disgusting vermin. Men, on account of their short hair, are much less likely to be attacked. It is a notable fact that certain individuals are peculiarly liable to become affected whenever exposed, and, in case of some children whose heads are carefully washed and cared for, it is a puzzling matter to account for the repeated presence of the insects in the hair.

The first symptom produced by the presence of the pediculi is an unpleasant itching of the scalp. In children, the continued scratching produces excoriations, and a serous or sero-purulent discharge soon appears, which tends to mat the hairs. An eczema, especially upon the occipital region, is frequently evoked, and this is so characteristic that, when limited to this region, it should always lead to a search for pediculi as its probable cause. An eruption of contagious pustules, as in the case illustrated, may appear upon the neck and shoulders. In strumous children the irritation of the scalp may lead to a marked swelling of the lymphatic glands of the neck.

Diagnosis. The diagnosis of the affection is readily made if the pediculi are found, but the presence of nits upon the hairs is alone sufficient to establish it, since they indicate that there have been, and probably will be, pediculi in the hair, even though none may have been discovered by a careful investigation.

When eczema of the scalp exists the presence of pediculi is often overlooked, and the affection may be unsuccessfully treated until its parasitic origin is discovered. As above stated, occipital eczema is an almost certain sign of phtheiriasis.

Treatment. The treatment varies with the extent of the affection and the social condition of the patient. In dispensary practice it is usually advisable to have the child's hair cut close, especially in warm weather. If no eczema is present the lice and nits may be destroyed by rubbing the scalp night and morning with ordinary kerosene. Caution should be given respecting the danger of setting the child's head on fire by rubbing in the oil in too close proximity to a gas-jet or candle. When severe eczema is present this must be treated by means of a soothing ointment, although it is sometimes advisable to destroy the parasitic cause of the eczema at the outset, even though the treatment should aggravate the eczematous condition. In private practice it is not necessary to have the hair cut, and, with proper attention, it will be found easy to cure the affection by careful combing and the nightly inunction of the ammoniated mercury ointment. The nits are sometimes difficult to remove, but this may be accomplished by rubbing each affected hair from root to tip with a sponge or soft cloth dipped in alcohol or cologne-water.

PHTHEIRIASIS CORPORIS.

Phtheiriasis *corporis* implies the presence of lice in the clothing, together with the existtence, to a greater or less degree, of certain cutaneous lesions. The affection is common, and often a chronic one among the poor and miserable, and under certain circumstances, the possessor of wealth and refinement is not protected against an acute attack. As Professor Hebra once remarked to his students, it is not always a disgrace to have lice, but it *is* a disgrace not to get rid of them speedily.

The lesions constituting the eruption in phtheiriasis *corporis* are: (1) peculiar hemorrhagic specks or so-called "bites," (2) small wheals or inflammatory papules, (3) excoriations, either presenting a raw surface, or covered with a crust of dried blood, (4) scratch marks of parallel direction, such as are not met with upon the skin, except as a result of phtheiriasic irritation, and (5) pustules, furuncles and superficial ulcerations.

The eruption is observed chiefly upon the body and thighs. It is always most marked in certain localities which correspond to the seams and folds of the clothing, where the pediculi secrete themselves, and deposit, in great numbers, their small, white and shining eggs. A tract of skin that can be almost covered by the palm, lying between the upper portion of the scapulæ, is a spot most likely to present excoriations, since it is a favorite habitat of the lice, and quite accessible to the hands of the patient. The eruption in this locality usually presents a striking appearance, the skin being frequently pigmented, and showing old cicatrices scattered among the recent excoriations. The eruption is also apt to be well marked around the loins, presenting a distribution which might be termed the phtheiriasic girdle. This is commonly observed when the trousers are supported by a belt. Excoriations are common about the trochanteric region and outer aspect of the thighs, when the trousers are chiefly infested. I have seen a patient with dark stripes running down the thighs and legs, and corresponding to the seams, which were swarming with pediculi and their ova.

Diagnosis. The diagnosis of phtheiriasis *corporis* can usually be made by observing the patient at a respectful distance—a very fortunate circumstance for the physician, who in charity practice has to treat a large number of cases. When the patient strips, the nature of the affection, if it be of long standing and well-marked, is evident from the characteristic location of the scratch marks, and from the fact that the patient finds it impossible to keep his hands still. There is no other disease in which the pruritus is so intense as in a severe case of phtheiriasis. Exposure of the body to the cool air seems to excite the desire to scratch. If the patient is requested to stand perfectly still, with his hands hanging, he may retain his soldier-like position for a few seconds, when he will probably begin, with both hands, to rub and scratch, and even to tear the skin, until it is bleeding at numerous points. The pruritic character of the eruption being thus manifest, we are led at once to exclude a diagnosis of syphiloderma and every other non-pruritic skin affection, and to think of urticaria, prurigo, eczema, or scabies, eruptions which are always accompanied by severe itching. The irritability of the skin, shown by the parallel pink streaks which follow in the wake of the finger-

nails, and the rapidly developing white ridges or small wheals, is a striking feature of urticaria, and might lead to the diagnosis of this affection. But in urticaria the severe excoriations are lacking, and the eruption is usually of recent and sudden development. Prurigo in the severe form, which is seen in the skin clinic of Vienna, is rarely, if ever, met with in this country. In a mild form it is occasionally encountered, and can be distinguished from phtheiriasis by its attacking chiefly the extremities, and being invariably a disease of long standing.

A case of phtheiriasis might be diagnosed as one of papular or pustular eczema, the difference in the appearance of these eruptions not always being very marked; but the characteristic location of excoriations across the back of the shoulders, around the waist, and upon the outer surface of the hips and thighs, should point at once to their parasitic origin. Scabies, when affecting the body extensively, may resemble phtheiriasis, but it manifests a strong preference for the hands, forearms, lower part of abdomen, genitals, and the inner aspect of the thighs, while avoiding the favorite seats of phtheiriasic lesions. It is intensely pruritic, as the common name of "the itch" suggests, but the patient scratches with comparative gentleness, and never digs the skin with fury, as in case of phtheiriasis.

It will thus be seen that the diagnosis is easy, in a severe form of the affection, but frequently cases occur in which only a moderate pruritus, with very few excoriations, is present. Here it may be impossible to discover any pediculi, and it is sometimes extremely difficult to distinguish the affection from the pruritus *cutaneus*, which is a neurotic affection, depending upon some internal disorder. The hemorrhagic points produced by the haustellum of the pediculus can generally be discovered, however, and serve an excellent purpose in pointing out the parasitic origin of the trouble. When in private practice there exists a suspicion of pediculi (and phtheiriasis is not wholly confined to dispensary patients), it is far preferable to quietly hunt for these characteristic lesions of the disease, than to give offense to a patient by instituting a fruitless search through the clothing.

TREATMENT. The treatment of phtheiriasis *corporis* consists in getting rid of the pediculi, and soothing the irritation of the skin, which their attacks have occasioned. In dispensary practice, I might say that the first aim of treatment should be to convince the patient that the eruption is not due to "heat" or "humor" in the blood, but that it is the natural result of lice in his clothing. The patient may be ignorant of the existence of lice, (though generally is conscious of their presence), but yet so thoroughly possessed with the idea that they are the effect, rather than the cause, of the eruption, that it is vain to argue the point, and hopeless to give directions for treatment. Such cases can only be treated satisfactorily in hospitals, where enforced cleanliness is possible. When the patient appreciates the fact that the lice cause the eruption, he may be directed to change his clothing throughout, with a fair prospect of his doing so. It is not sufficient, as many patients imagine, to put on a clean shirt once or twice a week, or even oftener. The patient must be told and shown, if necessary, that the outer garments are infested, and that it is essential to change these as well as the underclothes. While the latter are being boiled, the former may be baked in a hot

oven, with the probable result of destroying both lice and ova. It may not be superfluous, however, after the clothes have been thoroughly baked, to sprinkle the seams, where the ova were numerous, with sulphur, pyrethrum or staphisagria. As regards the eruption on the body, this will quickly disappear when its cause is removed. A daily warm bath will prove agreeable and beneficial when the skin is greatly irritated. For dispensary patients I usually prescribe an ointment or lotion of carbolic acid, which tends to allay the itching, and to repel the parasite.

PHTHEIRIASIS PUBIS.

Phtheiriasis *pubis* is a pruriginous affection of the hairy region to which "crab-lice" have gained access. The mons pubis is the part usually affected, as the lice are apt to be transferred from one individual to another during sexual intercourse. Their presence occasions a considerable amount of itching and the frequent scratching of the affected part soon gives rise to an eruption of small papules, and in some cases to an eczematous condition. The lice are not readily discovered, if unsuspected, but a careful examination usually reveals a number of minute bodies adhering closely to the roots of the hair. When these are dislodged and placed upon a white paper and viewed with a keen eye or magnifying glass, they will be readily recognized as pediculi.

TREATMENT. The blue mercurial ointment, which is a favorite lay remedy for this affection, is certainly efficacious, although objectionable. When freely applied it evokes an eczema of the affected part. A sparing use of the ammoniated mercury ointment is far preferable.

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